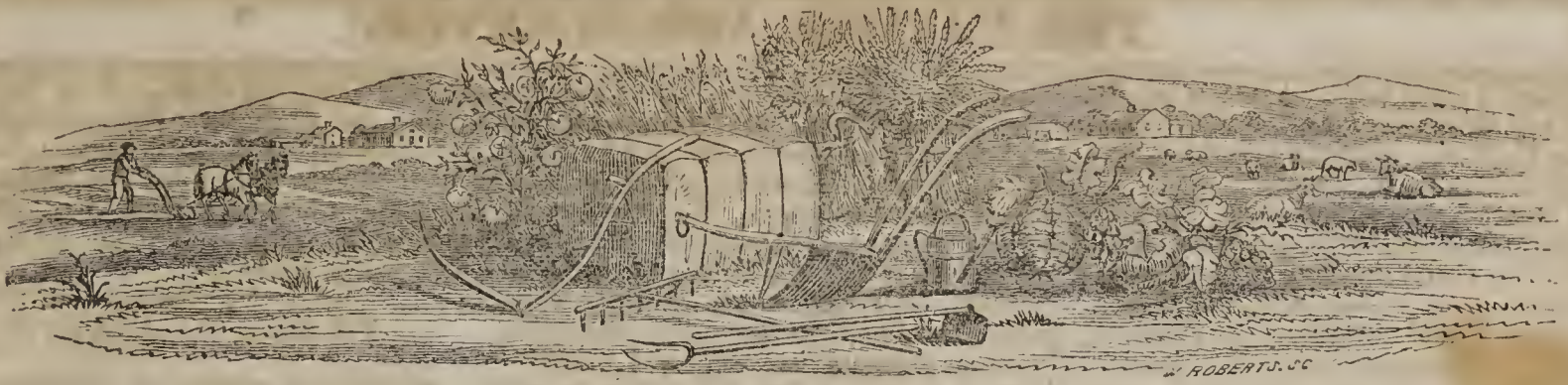


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FARMER AND PLANTER.

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AN ADDRESS

Delivered before the Anderson District Farmers' Society, at Anderson C. H., S. C., on the 21st Nov. 1849,

BY DR. O. R. BROYLES.

Revised and corrected for the Farmer & Planter.

[CONCLUDED.]

But, gentlemen, there is still another and highly important purpose to be achieved, and which occupies to those we have been considering, the relation of cap to the climax—of keystone to the arch—the acquisition of a knowledge of those sciences which are now known to be the foundation of our profession, and render light and illustration on our path at every stage of our progress. The application of the principles of chemistry to agriculture, is beyond all question the dawn of a new and brilliant era, and one pregnant with the most momentous consequences to the interests of mankind.

"Forty years ago," to use the language of Professor Millington, "nobody thought of looking any closer into the soil than the skin or surface. Nobody lifted a handful of soil and inquired, what is this? what is it composed of? What are its qualities? What deficiencies? What crop will its ingredients best feed?—What manure must I apply to it, to make it grow any kind of crop I want? Such questions then would have been deemed unanswerable; because the farmer was uneducated. He was indeed little better than a mole grubbing along with his eyes shut."

"Forty years ago, no farmer thought of taking a blade of grass, an ear of wheat, or a turnip, and asking himself how did this grow? I put it into the ground a tiny seed, and it has come back altered in form; has it eaten or drank, or in what manner and from what source has it acquired its new bulk or character? Has this blade of grass or this turnip, its habits and its tastes, its likings and dislikings like man and animals? Will some things feed and nourish it, and others poison it? And if so, how does the apparently insensible plant know how to choose

the proper things to live upon? How does it single out its food and refuse its poison?"

"A farmer forty years ago, could tell if a turnip was big and sweet, or if it was stunted and stringy. But his sheep that eat them knew just as much. Blades of grass never concerned him so long as they made good hay, of which quality his horses and cattle were incomparably the best judges. He laughed at improvements; scorned a knowledge of book farming, as it was called; grew conceited in his own ignorance, and while he worked with his hands till his fingers were nearly turned to bone, he let his brain lie in a wild fallow until it grew into such a tangled wilderness, that a sensible thought could not get through it."

"At this period, even the lower grades of education were hardly thought necessary for a farmer. Bodily health and strength, combined with industry and perseverance, a knowledge of the management of horses and cattle, the skilful guiding of a plow, and so much of arithmetic as would enable him to attend market and calculate his amount of sales, were all the requisites deemed necessary for a good farmer."

Such, according to the Professor, was farming forty years ago. "What a strange and complete revolution has taken place. For a skilful and accomplished farmer of the present day, requires an education as complete and extensive as is necessary for what are called the learned professions, such as Law and Medicine; and his occupation is changed from a life of drudgery and corporeal labor to the rank of an intellectual and pleasurable profession."

Nothing in the political history of nations is more inexplicable and astonishing than the inattention and neglect of the great business of agriculture. Tho' first in interest and importance, though urged upon the consideration of legislators and statesmen, by reasons almost as strong as those that impel a hungry man in search of food, yet their energies have been directed for ages to the learned professions of Law and Physic, to commerce and manufactures, to the astrono-

my of the distant heavens, "et cetera," as if it were of more importance to enlighten mankind in respect to the geology of the Moon, than the soil on which they make their bread.

The widespread and pervading interest which has been awakened of late years on the subject of agricultural and mechanical education, must be a source of very high gratification to every well wisher of his country. Intelligent men every where, have at last come to the conclusion, that a knowledge of the physical sciences is as necessary to successful results in agriculture and the mechanic arts, as in the profession of medicine, and much more so than that of law, commerce, or manufactures. The application of science to these occupations must soon exalt them to the dignity of learned professions, open up a new field to the enterprises of intellect, and attract thither a full share of the talent and ambitious portion of our young men.

This new order of things must produce a most distinguishing era in the civilization of the age. The influence of trades and occupations over the constitution and physical powers of the human body, are not more impressive and controlling, than they are over the moral qualities of the mind, and commerce and manufactures, though the hobby horses of highly civilized nations, compared with agriculture in this respect, sink into comparative insignificance. I will not assert, as some have done, that the merchant is necessarily unpatriotic, but there can be no question, that it is a profession whose tendencies are eminently hostile to strong local attachments, and the ardor of patriotism. "A fortune," to use the language of a ready writer, "is not to be made at once by industry. It is made by the daily accession of small sums. Small sums, therefore, become an object of importance to the merchant. He values them highly. And the man who sets a high value on such sums, may possibly adhere to the dead letter of honesty, but he has lost the nobility of the heart, for which nothing can be a sufficient compensation.—A minute attention to trifles narrow and contaminate the mind." Who would

not prefer to trust political power in the hands of a substantial farmer of the State of New York to a princely merchant in a rented building in Wall street.

But manufacturers exercise a much more demoralizing influence over mankind. For, as observed by the same writer, "there must be but one mind in a manufactory. If any subaltern operator be capable of thought it must lie dormant. The same operations are performed sometimes by a man, and sometimes by a wheel. They are both necessary parts of the great machine, set in motion by the mind of the intelligent regulator.—The effect of manufactures is to cultivate, exercise, and enlighten the directing mind which oversees the whole, but sinks and degrades the operatives into necessary pieces of machinery. Such a state of things is of course incompatible with moral and intellectual improvement, and dangerous to republican institutions: since the vote of these establishments where the one man's power is so completely in the ascendant, is not the vote of the operatives, but of the master mind that presides over the establishment."

But how widely different are the tendencies of the profession of agriculture. The first and the most natural of human pursuits, and the one allotted to man by divine appointment; it is the prolific source of his virtues and his happiness. Instead of relying upon the chapter of accidents, and those commercial revolutions which elevate one man to opulence upon the ruin of his fellows, he trusts exclusively to honest industry, and the favor of beneficent Creator for his rewards. His leading interest is the soil on which he treads, and is identical with that of a large majority of his fellow-citizens. His political principles are above selfish considerations, nor is he liable as the followers of less independent pursuits, to be won over by the devices of demagogues, to serve the purposes of political parties.—In such hands the rights and safety of a country may be trusted, whether in council or in the field. The policy, therefore, of educating the rising generation of farmers, and not less extensively than if designed for the learned professions, would become the most interesting improvement of the age, and diffuse an amount of intelligence among our population not to be met with in any other nation of the earth.

Two principal reasons, especially in our own country, have united to lower the standing and retard the progress of agriculture, the wide field for speculation, and the many and far more ready means of acquiring sudden and large fortunes, over the more peaceful and steady pursuit of agriculture, always so attractive to men of genius and enterprise. And perhaps to a greater extent to the zeal of a majority of our most talented young men to embark in the learned professions, whilst the poorer classes and the less energetic and talented of the wealthy, have had to stoop to the menial occupation of tillers of the ground.

Colleges have been endowed, mainly at the expense of the farming interest, in

all the States. And collegiate educations have been obtained, apparently for no other purpose but to stock the world with that most useless portion of its population, professional men. Whilst not until recently has a single professorship of agriculture been established, or a lesson instilled into the minds of the rising generation in reference to the important business of supplying food and raiment. To such an extent has this mania for the learned professions obtained in this country, that there is scarcely a youth whose parental means place him above want, who ever dreams of conforming to the divine ordinance, "By the sweat of thy face shalt thou eat thy bread."

We claim to be freemen, and pride ourselves upon those principles of republican equality no where to be met with under the despotisms of foreign nations, yet I doubt if there can be found a people any where, who yield a more ready homage to mere professional titles than the people of the United States. The title of Lawyer or Doctor, exercises a magic influence in the social circles, that is both ridiculous and astonishing. Though an illiterate pettifogger with barely law knowledge enough to enable him to fill the blanks of a subpoena writ, he commands as much respect as if he wore the mantle of a Henry or a Wirt. Though a medicus skilled in roots, and with scarcely knowledge of chemistry to qualify him for the business of a soap boiler, he nevertheless administers the strongest chemical compounds, and luxuriates in a remarkable degree of confidence and respect every where awarded him.

The application of science to agriculture and the mechanic arts, will soon correct the errors of the public sentiment, and organize the social relations of society on a new basis. It will not fail to originate a new form of aristocracy; and one based exclusively on intellect and personal merit; and the farmer and mechanic will take rank with lawyers, doctors, and statesmen.

No sentiment ever contained more truth than that, "the man who contrives to make two blades of grass or two ears of corn grow where only one grew before, deserves more from his country than the whole race of politicians together." And that of Lord Holland, used in the British House of Lords, wherein he declared, that if either Watt or Sir Richard Arkwright, was weighed in the balance with the whole British Parliament, the Parliament would kick the beam.

The subject of agricultural education is intimately connected with the dignity and prosperity of our country, and it is to be hoped that the legislative authorities of this State will take prompt and decided action in relation to our wants. Professorships to teach the science of agriculture and the mechanic arts, have been established in many of the Northern colleges, and what is a much more important step, several of the States have endowed colleges expressly for the purpose, and expended large sums for the purchase of model and experimental farms, whilst not the first step has been taken in

the old Palmetto State. It is both the policy and duty of the agricultural societies throughout the State, to take concerted action in the premises, and demand from their representatives that attention to their rights and interests, so long and so unjustly withheld.

UNDER DRAINING.

BY PROF. J. P. NORTON, OF YALE COLLEGE.

[Concluded.]

WE now come to the important question—How deep should the drains be made, and how far apart? Smith, of Deanston, and many distinguished British farmers agree in the opinion, that the proper distance of separation is from sixteen to thirty-six feet. That first named is proper on stiff clay soils, and the latter only on those which are very light and sandy. From eighteen to twenty-four feet, is, I should think, the common distance. Upon the subject of depth, great diversity of opinion has been expressed; but I believe that all of the best farmers are now united in the conviction, that shallow draining is in the end bad economy. One of the principal benefits derived from the introduction of the drain, is the deepening of the soil, as I have before explained. But this benefit is never fully, and in many cases not at all felt, until the drain is followed by the subsoil plow. The layer of earth immediately over the drain, should never be disturbed; if the plow breaks it up, particles filter in and soon impede the exit of water. It is clear, therefore, that the tiles or stones should be laid so deep that the point of the plow cannot approach within four or five inches of their upper surface. The improved implements now in use for subsoiling, go down in some instances as far as twenty inches. Our farmers may never have gone more than ten, but they ought not, by putting in shallow drains, to preclude themselves from the ability to adopt improvements in this direction. Another argument against such drains, is the fact that they do not draw as well as the deeper ones, nor dry so wide a surface. I have known repeated instances where farmers who had made them shallow, were so disappointed in their efficiency as compared with deep ones, that they went to the great expense of taking them up, and relaying them some inches deeper. From twenty-six to thirty-six inches, is the depth ordinarily employed at present, although some maintain that four feet or four and a half is still better; this, however, seems to be carrying the matter to excess; and there can be no doubt that at distances of from sixteen to twenty-four feet, drains at a depth of from twenty-six to thirty-six inches, will dry the stiffest and wettest land.

Several plows have been contrived for the purpose of cutting the drain trench at one operation. These are drawn by from eight to twelve horses, and following an ordinary plow take out the earth to the depth of from eighteen to twenty inches, a few inches more are then removed by the spade. This plow is said in some

parts of Scotland to have greatly reduced the cost of trenching, but has never been generally introduced. I should think it too unwieldy and expensive an implement for this country.

The old theory as to the location of drains was, that they should run across the slopes, so as to cut off the springs and catch the descending water. This method is now, however, entirely abandoned in all the best districts of England and Scotland; the drains are run straight down the slope, exactly parallel to each other, and without reference to wet or dry spots, excepting sometimes a short branch to a strong spring. The layers of earth in the subsoil generally lie in such a direction that the water flows from them at a more uniform depth, into the straight than into the cross drains. A drain straight down would cut them all to the same level. In those directed straight down the slope, the current is also greater, and usually suffices to wash away any small obstructions; should they become quite stopped, however, the great pressure will cause them to burst out and show where the mischief really is. In cross drains the descent is slight, and they may remain choked a long time before the cause of evil is discovered.

Where the declivity is very gentle, the drains made of small stones do not work well; it is in such cases necessary to employ tiles. Mr. Smith says, "that with careful management a drain will act efficiently when the fall is only four inches per mile." At the foot of each declivity, or half way down if it is a long one, a main drain made of large tiles, or built of stone with a smooth floor, should run across to carry away the water from the small drains; these should not be of great length without thus discharging, as the friction against the sides of so small a tube, unless the descent is considerable, seriously retards the flow of water. Such main drains should be sunk three or four inches below the small ones. Tiles of a large size are made expressly for them.

Having thus explained the structure, and the theoretical advantages of the drain, it is necessary to say something more definite as to its practical benefits. The farmer who cultivates his land for a subsistence, must always fall back on this inquiry—will this improvement repay me? Profit must be a test of success with him. The verdict of this class in England, Ireland, and Scotland, is most decided. During the last year of my stay in those countries, I visited districts where the utmost efforts of the tile works could not supply the demand. The farms are almost all in the hands of tenants, but the landlords generally bear a part of the expense of draining: in some cases they furnish the tiles, if the tenant will do the cutting and filling of the trenches; in others they allow a certain per centage of the amount expended. The landlord feels that the permanent improvement of his land by this simple process is so great, that he is willing frequently to bear much more than half of the charges. In Scotland, where long leases are prevalent,

tenants do not hesitate to drain entirely at their own expense, especially towards the commencement of a lease. Many of them state that the increased produce repays the whole cost of the improvement, in from two to three years. Five or six years was the longest period that I heard stated, and that only in peculiar cases.—The actual outlay in the operation, of course varies greatly on different soils, and with the distance of the drains from each other, but it may be stated generally at from \$3 to \$8 per acre, or from \$10 to \$40. This gives little information as to the probable cost in this country, as our rates of labor and modes of working are entirely diverse from theirs. The extent to which some large tenants and proprietors have carried their operations, is far beyond anything that single farmers here can do.

In 1846, I visited the farm of Mr. Dudgeon, Spylaw, at Kelso, near the English border. The surface soil was stiff, and the subsoil almost impervious to water. He had then drained about 900 acres, and the length of drains was nearly 300 miles. His landlords defrayed about half of the expense. He had a tile work which turned out from 4 to 5,000,000 tiles in a year, but not sufficient to supply his wants.—He was then in the beginning of a new nineteen-year lease, and was draining as fast as possible, in order to reap the utmost advantage. The drains immediately raised the value of his land from a rent of \$2.50 per acre to one of \$6.50. Owing to the ameliorating and drying influence, he had fine crops of turnips on stiff clays where it had never before been thought possible to grow them. The system of draining across the slopes had been tried on this farm, but abandoned as ineffectual in comparison with Smith of Deanston's method. He was even going over those fields anew; at the time of my visit workmen were cutting straight down one of the slopes, across the old drains. Mr. Le Roy, a proprietor in the same neighborhood, had put in about 250 miles of drains on his own estate, thereby increasing the rent of many of his farms from \$5 to \$14 dollars per acre. These were men of large property, but instances of equal or even greater success on a small scale, are frequent in many districts. In travelling over an unusually large portion of Great Britain, and hearing the experience of a very great number of practical men, I have never found one who was disappointed in the result of efficient, thorough draining.

The manner of carrying out improvements, and the extent to which they are adopted, must necessarily be very different in this country and England. Our farmers are mostly proprietors of moderate means, each managing his own land. We have no tenants who are willing to pay eight or ten thousand dollars of annual rent, when that sum would purchase a superb estate in the west. Our farming on so much smaller a scale, the improvements must be more gradually perfected. They may, however, and in this instance ought to be, of a similar character. The remedy for wet cold land is the same here

as there, and there are few of our farmers who could not in the course of each year, find time to accomplish something; even without increasing to any material extent, their usual force. Half an acre or an acre of drains might be put in annually on almost any farm, and I have but little doubt that he who commenced by one acre a year, would not long be contented without doing more. It is of much importance, that what is done be done well. The desire to go over a surface, should not induce the improver to go over it in an imperfect manner. I have known instances where drains were put in at double the proper distance, with the intention of finishing from the profit of the first operation. The sequel of such unwise economy is almost always the same. None of the ground is thoroughly drained; the land is still in a state unfit for the most advantageous cultivation; the profit that ought to be derived from draining, is only in a comparatively small degree realized, and the money invested is returning but a poor interest on the outlay. The prospect of a little saving, ought not to be an inducement to neglect the best mode of construction. Due care in the laying and filling, make a difference of many years in the time of duration. In the covering of stone drains particularly, no pains should be spared.

The subject of draining is peculiarly important in this section, where there is so much wet heavy clay land. A large extent of it lies nearly in a state of nature, so far as regards the adoption of effective improvement. On many wet fields in the hollows, there is scarcely any sustenance for cattle, and a large proportion of the hill sides produce only a scanty innutritious growth of grass. Even much of the land that is mowed, produces but a small part of what it would bear, were it not so wet. The land which thus lies entirely idle, or comparatively unproductive, is in many cases of the very best character, strong and deep; the hollows and flats generally are richest, because they receive the washings from the hills.

Improvements upon such soils pay the improver better than any other, because the gain is so great. Land which is tolerably dry, produces an increased crop after draining, it is true; but in that which was nearly worthless on account of a surplus of water, the whole crop is a gain. What would pay a better rate of interest than a ton and a half of hay per acre, from land before of little value, even as pasture? I have known instances in Scotland, where in cases of this character, the first crop repaid the whole expense of improvement. Suitable materials for the manufacture of tiles, can be procured in this section with great facility, and if there should be a good demand, they would in a short time be afforded at low rates.

But time admonishes me that I should draw toward a close; the subject is not by any means exhausted, but I think that enough has been said to show the propriety of combining theoretical with practical knowledge. Draining, as now described, becomes a science; giving full

scope for investigation, and long courses of elaborate experiments, and I trust that all are convinced, that the results of such experiments may be communicated in a form quite intelligible, even to those who have turned their attention to scientific subjects. It has been my object to show, that what is ordinarily termed book farming, may yet be practical; and that it may offer results worthy the attention of those who depend for a livelihood on the profits of their profession. Among the best farmers abroad, I heard but one voice as to improvements; it was always the remark that those who farmed *highly*, made the most money. That is—those who reasoned most on their pursuit—who availed themselves of every source of information, and who expended the most money judiciously upon their lands, always obtained the largest profits. A stress should be laid upon the words *judicious expenditure*, because we see some in all communities, who enter into improvements rashly and without due precautions. The failure of such ill-advised attempts, exposes a good cause to ridicule. I would not, however, be by any means understood to say, that all farmers should become scientific men; that is clearly impossible; but they may through lectures, or through books, acquaint themselves with the great principles upon which the cultivation of the soil should be grounded; may obtain an idea of the nature of the substances with which they have daily to do. Such knowledge as this is simple, and can be attained even by an intelligent child, of twelve or fourteen years.

MANURES--WOOLLEN RAGS.

This may be classed among the best manures, and highly valuable in composts. Ure says:—"All wool, in its natural state, contains a quantity of a peculiar potash-soap, secreted by the animal, called in England the *yolk*; which may be washed out by water alone, with which it forms a sort of lather. It constitutes from 25 to 50 per cent. of the wool, being most abundant in the merino breed of sheep; and however favorable to the growth of the living animal, should be taken out soon after it is shorn, lest it injure the fibres by fermentation, and cause them to become hard and brittle. After being washed in water somewhat more than lukewarm, the wool should be prepared and dried."

We name the above merely for the purpose of suggesting the use of the water in which wool has been washed, as manure, than which no waste can be more valuable.

Woollen rags are composed principally of albumen, (a substance similar to the white of an egg, when boiled, in appearance,) and minute portions of lime, silica, and traces of various other salts. They continue to act with the same energy, when in the ground, the second as in the first year, and are highly esteemed as a manure for hops, turnips &c.,

Twelve hundred weight, applied once in two years, is found to be sufficient for an acre, while the lightness of carriage, ease of handling and ability to keep un-

altered until required for use, renders it much sought for by agriculturists. It decomposes more slowly in the ground than even train-oil or bone-dust.

M. Chevreul states that 100 parts of a merino fleece contains

Earthy substances.....	26.06 parts,
Fatty matters dissolved by washing, ..	32.74 "
Clean wool,.....	31.23 "

Eleven hundred tons of woollen rags are annually imported into England for the use of farmers, and this, too, in addition to a much larger quantity of domestic rags which is also used for manure. The usual price paid for these rags is about twenty-five dollars per ton. The Kentish farmers state that rags during their slow decomposition, *warm* the ground, and that the phosphate of lime contained in them is in so soluble a shape, and so minute a state of division, that its effects are greater than its quantity would lead one to suppose. We cannot but believe that the *dark color* of the rags, rendering the soil for a time more susceptible of being affected by the sun's rays, has more to do with *warming* the soil than the chemical constituents of the wool.

The Kentish plan of cutting the rags into small pieces, and then spreading them on the ground we do not believe, is an economical mode of using them.

If woollen rags be placed in a compost heap, a portion of which is composed of carbonaceous matters, the fermentation of the mass will be assisted by the decomposition of the rags, and the resultant gases arising from their decomposition will all be absorbed by the carbonaceous portions of the mass. It cannot be proper to apply any of the constituents of the plants to the soil in an undivided state, when they can so readily, by composting, be in a more minute state of division, and thus be more likely to be within the line of travel of every root.

[Working Farmer.]

STOCK BREEDING.

BY W. C. SPOONER.

THERE is no branch of a farmer's business to which so little attention is generally paid as that of breeding. It is often regarded as a matter of chance whether the produce will turn out valuable or worthless; whilst on the other hand, there is nothing so true as that unhealthy parents will not produce healthy offspring. It is very possible that, where one parent is sound and the other diseased, that the progeny may turn after the former; but then it is just as likely to turn after the latter, and therefore it is very unwise to risk the expense of breeding on such an uncertainty.

There are few subjects connected with breeding more interesting than the relative influence of the male and female parent, and few on which such different opinions prevail. Whilst some ascribe the principal influence to the male, others consider that it is chiefly due to the female, and there are not wanting illustrations that appear to support either theory. The freaks of nature (as they appear to

us) are certainly very curious, and people are often more struck by a remarkable exception than even by the rule, and are disposed to found their theories accordingly. The Arabs of the Desert, so celebrated for their scrupulous attention to the purity of their breed of horses, are comparatively indifferent as to the stallion, but prize and preserve their mares with the most rigorous care. They will part with the former for an equivalent remuneration, but scarcely anything will induce them to dispose of their mares if they belong to the true breed. From this well known fact it has been naturally inferred that they consider the influence of the female pre-eminent, and the supporters of this theory adduce the fact just mentioned as a strong argument in its favor. Indeed at first sight it would appear, when we consider the more intimate connection of the female with the offspring, kept up during the long space which elapses between conception and birth, that the influence of the dam must be greater than the sire.

Facts, however, appear rather to support an opposite doctrine. The offspring of the male ass and female horse resembles the former far more than the latter: the long ears, spare muscular development, narrow feet and sluggish action, are almost equal peculiarities of the mule and ass, and strongly attest the plebeian origin of the former. The size, too, approximates to the ass, for the large Spanish mules we sometimes meet with are begotten by asses of great size.

It is surprising, too, what large colts small mares will breed when begotten by horses of great size. Pony mares will thus rear stout cobs and gallowses; and well bred mares about fifteen hands high will throw good sized carriage-horses if put to a powerful stallion.

We may, therefore, from these and other simple facts which could readily be adduced, be justified in concluding that so far as regards the size, general appearance, external form, and muscular development, the influence of the male is superior to that of the female. But altho', in obedience to this principle, I believe that it is principally by means of the male that various improved breeds will be rendered more perfect, yet I by no means wish it to be inferred that I consider the qualities of the female a matter of indifference. So far from this being the case, I would censure in the strongest terms that utter neglect of the qualifications of the female which is frequently displayed, particularly with horses, regarding it as the most grievous of errors appertaining to breeding. It is of equal importance to study the qualifications of the female as of the male, though their respective excellencies may not be the same. Hereditary diseases and weakness of constitution are much more likely to be communicated to the offspring by the mother than by the father, which is in keeping with the fact of the long and intimate connection kept up between the dam and the offspring, both before and after birth, till weaning takes place. As the same blood nourishes both, both are likely to

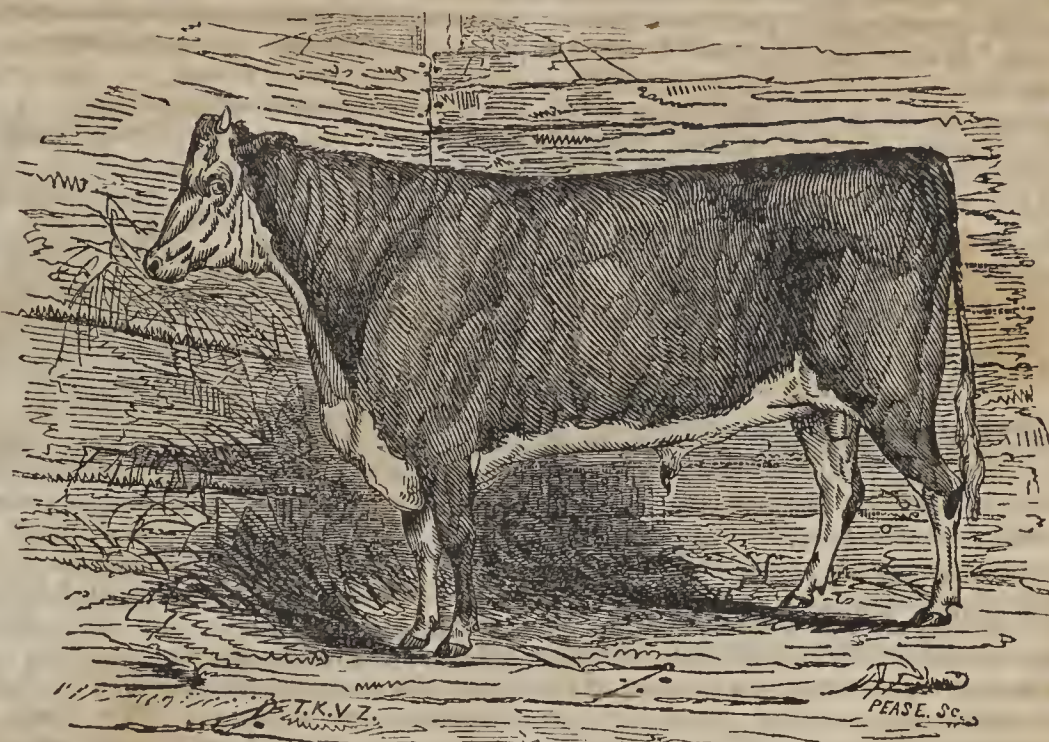
become affected by any unhealthy change in this fluid. Soundness of constitution is therefore, an indispensable requisite in the female.

I offer these remarks as general rules, but by no means as rules without exceptions; and I do not wish it to be inferred that the female has no influence in those qualifications in which the male is pre-eminent for it sometimes happens that the female has greater influence in these respects than the male, and in all cases some degree is possessed. Thus, when a handsome, well-bred mare is covered by a large, coarse stallion, the defects of the latter are generally considerably softened down—the head is finer, and the frame of the offspring, though larger than that of the dam, is handsomer than that of the sire. The result of this cross is generally superior to an opposite assortment, where the sire is thorough-bred and the dam a coarse heavy animal. The progeny in this case is often unequal and ill arranged, possessing perhaps the fine legs of the sire and the coarse body of the dam.—We may therefore with much propriety endeavor to modify the defects of one parent by opposite qualities in the other; and though we may not always, we shall often, succeed to a certain extent in the accomplishment of our wishes. We shall succeed, however, the more perfectly by attending to those qualities in which the respective influence of the male and female is most likely to be exercised: that is, the size and external conformation we should seek to govern by means of the male, and the constitution and the nervous system through that of the female. The fact, however, of the male animal begetting from fifty to a hundred offspring in the course of a year, whilst the female does not produce more than one or two, must and always will cause improvements to be effected in breeds of animals principally by means of the male.

[N. Y. Spirit of the Times.]

COTTON ROPE.—The editor of the Charlestown News speaks in terms of strong praise of a sample of cotton rope, manufactured in Barcelona, Old Spain, which has been presented to him by the captain of a Spanish vessel. The donor states that he had been using it for years on board his vessel for various purposes, and considers it, in many respects, superior to hempen cordage. It works remarkably free, and retains its softness and pliability in the coldest weather; and as an evidence of its durability, he affirms that the cotton tiller rope, then on board his vessel, had been in use for more than three years while the same article, made of hemp had to be renewed at the end of each voyage. It is manufactured out of refuse cotton.

FATTENING POULTRY.—Coop up poultry to fatten, and they will do well up to twelve or fourteen days. Keep them in the coops beyond that time, and feed them as much as you like, they will grow leaner every day until they grow a skinful of bones, and die.—*Agricultural Gazette.*



PREMIUM HEREFORD BULL CALF "POMARIA"—Aged 5 Months.
Bred by Corning & Sotham, "Hereford Hall," near Albany, N. Y: now owned by A. G. SUMMER, Ravenscroft, S. C.

For the Farmer and Planter.

HEREFORD CATTLE, NO. III.

WE continue our remarks on Hereford Cattle, and give the cut of a calf. By reference to the transactions of the New York Agricultural Society for 1844, pages 19, 20, and 21, it will be seen that "Pomaria" received the "first premium as the best bull calf of any breed" exhibited at the Fair at Poughkeepsie, and that he also received the highest premium as the "best Hereford bull calf." He was then about six months old, and is now a promising bull. As a work animal, he is not to be surpassed for the yoke, and for the last twelve months he has done as much service in my teams as any ox I have. These teams are regularly engaged in lumbering, which is the heaviest kind of hauling. In addition, he does all the legitimate bull service, required by my stock and those of several of my neighbors.

The cut gives no idea of his present form, as he has grown, proportionably, much longer. He is of a rich purple plum color with white face and chine, and is an excellent handler. His stock so far exhibits great thrift, and are remarkable for the uniform appearance which characterize the descendants of this breed, wherever found. I am convinced that they are the best cattle for all purposes I have ever seen—though I will not positively assert this when there are so many admirable breeds in fashion.

PROFESSOR Low gives in substance the following account of the Herefordshire breed, in his celebrated work on the Do-

mestic animals of Great Britain. The region of country extending along the base of the mountains of Wales, is a fertile tract, calculated to increase the size and so to modify the characters of the cattle which it maintains. The effect is no where more evident than in the richly cultivated county of Hereford, in England.—This county was originally a portion of the domains of the Cambro-Britons, and its cattle retain traces of a common ancestry with the Welsh cattle—possessing the same orange yellow color of the skin; distinguishing them from the Pembroke and Devons, and a medium length of horn, separating these breeds from the race termed Long Horned. At one time the Hereford cattle consisted of a red race and the upward curvature of the horns, resembling the coarser kind of Devons.

The breed now owes all its reputation to modern changes. As early as 1769, Mr. B. Tomkins began a system of breeding which worked favorable improvement on the stock of his country. The breeders before his time sought to combine size, dairy qualities and purposes of labor.—This breed when he commenced had a great tendency to fatten, but this being corrected by judicious crossing, in the end became serviceable to the breeder, as it increased their handling qualities. From patient experiment with this breed, Mr. Tomkins at last brought it prominently before the public, but only after it had, without trumpeting, slowly and surely, extended itself throughout the entire county of Hereford, and gradually assim-

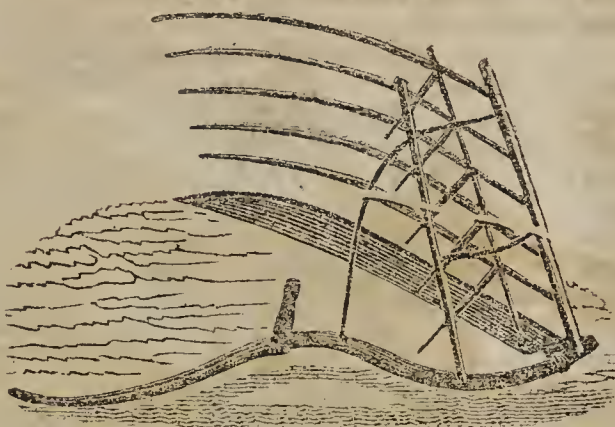
ated to a more uniform standard its entire stock of neat cattle, and Hereford became the most important breeding district of a distinct family of the larger cattle in the west of England.

The modern Hereford is a breed of a larger class, and they attain a weight scarcely surpassed by any other breed in the kingdom. Their color is a dark red, or reddish brown with white faces, and more or less white on the back or belly.—The horns are of medium length and spreading, but sometimes very short in the bulls; the forehead is broad, and the countenance open and mild; the shoulder is well formed and the chest broad and deep. Their steady strength and the docility of the oxen, suit them well for purposes of labor. They are fine handlers—fatten readily on ordinary food—and though, as a breed, they are not held in the first rank as milkers, they nevertheless possess respectable dairy qualities when compared even with the best dairy breeds. The Hereford breeders naturally set a high value upon this breed. They esteem it to be the best in England. It has many excellent properties for the grazier and pays him much better than the Durham, though taking the early maturity of the latter into consideration, many suppose they merit the preference. It is my opinion that these breeds should never be crossed except for the shambles—as there could possibly result no improvement even in the first generation, to either. The crosses of either on the common cattle of the country would, from other causes, work a great improvement, and the introduction of highly bred animals only repay the farmer by crossing them by the use of males, with those cattle which are already constitutionally adapted to the pasturage and habits of feeding of the country.—This is the only serviceable use to which our farmers can at this day put high bred animals. The man of wealth, who can pay for an expensive agricultural hobby, may afford to keep improved Durhams, Herefords and Devons, but the man who wants them to pay him back for his care and food, must content himself with the half breed until the whole country adopts itself the habits of a farming people.—With hogs it is different, for to raise his own meat, no farmer, even at this day, can rely on the “providence of the range,” and the best breeds pay best, for the care bestowed on them. When the same causes operate on the feeding of cattle, we may see sleek herds, where dry bones now rattle.

A. G. SUMMER.

Ravenscroft, S. C.

GRAIN-CRADLES.



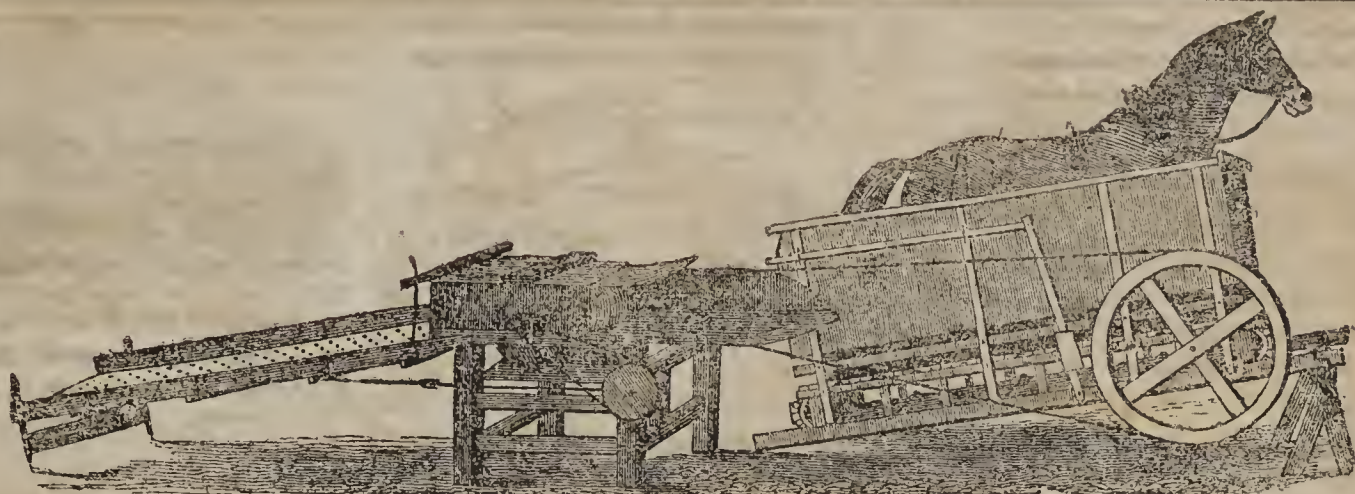
From the Columbus Enquirer.

Stroll about the Plantation.

A walk through a cultivated field is at all times interesting to one who reflects what a vast influence the growing crop must have upon the destinies of man; but at the present season, when the young plants are just starting into vigorous growth, it is particularly so. Come, sir, let us look through the plantations and see what improvements are making in southern culture. You have a fine drove of cattle here, pray what breed are they? They are the *Pine Straw Rangers*, a hardy race, make out to live through the winter without much feed; I have tried to introduce the improved breeds, but they do not seem to do well. It is not to be wondered at their not doing well, judging from the appearance of your native stock. How would the blooded horses of England fare, were they brought here and turned out to take the chances with the cattle? If you would improve your cattle, keep fewer of them, cultivate the root crops for winter feed, salt and lime them regularly, curry and comb them, and the Southern stock will answer a better purpose for our climate than the choicest imported. Bring a fat Englishman here, cut him off from his roast beef and plum pudding, and feed him on long colards and bacon, and how long will he retain his condition? Improve your own stock by care and attention, do not trust implicitly to negroes, they are frequently cruel and neglectful. The corn now begins to assume a healthy hue, start the plows and hoes, thin it out to a proper stand, there is little made by crowding the ground with too many stalks. Now is the time to apply fertilizers to the hill, corn may be fed in its growing state, and will richly repay for the trouble. It is a mistaken notion, hilling corn; what think you nature provided those braces for around the stalk, which we see, as the stalk begins to get top-heavy? what but to support itself without the aid of hills; throw no more earth to the stalk than will kill the grass. On the whole, the corn looks well for the season. This field of cotton looks sickly from its recent chills, but the warm weather with judicious working, will soon bring it out.—You use the sweep plow, why do you not use a cultivator? On your well cleared lands, one cultivator will save the labor of four hands. Have you never seen a cultivator? They are a plow, or a number of light plows, fixed in beams in the

The annexed is of the latest and most approved make, with a superior scythe.

form of a V. The beams are so constructed that they can be gauged to run between any width of furrow, consequently much hoe work is saved, and there is so much depending on the cotton crop that all labor saving implements should be adopted. Remember as the cotton plant first takes its stand, so it is apt to continue for the season; if it is neglected and allowed to become grassy, he must be an uncommonly smart planter that ever gets it in perfect trim again; but if it starts fair, then it is cultivated with ease afterwards. Do not attempt to cultivate too much, one half of the diseases of cotton arise from improper cultivation. If your ground was in first rate order, your seed of the first quality, and you now work with judgment and energy, the stand will be a good one. The Wheat looks well, and gives prospect of early *biscuit doings*. Was the prospect that cotton would not bring more than six cents, you could have made it profitable to have cultivated wheat more extensively. The cut worm has been very destructive to wheat in some sections, but where it has escaped their ravages it looks promising. Here we come to the Oat field; oh, how the horses and mules laugh at the prospect of escaping from their dry and crumbling fodder. Oats look well but you have not enough of them for the number of stock you have on hand; they are better feed for working stock than fodder, and your milch cows will pay you for them in the winter, and the dry cattle will *keep their ribs to themselves*, should they get a bundle occasionally.—Here are Peas sown broad-cast. Now you are acting like a sensible man. Broad cast peas will do more to renovate land in the South, than any of the clovers of the North, they draw nearly all their rich properties from the atmosphere, and by the shade which they afford the ground during their growth, and their rapid decay after maturity, make a fertilizer exactly suited to the South; but if you would benefit your land do not follow the plan pursued by many, who go in strongly for manuring with the cow pea, as the pea is about maturing, and the leaf about to shed and fertilize the land in its decay, a legion of half starved cattle and hogs are turned upon them, and the poor land is *cheated out of all*. And here is about one of the most important crops of the farm, we had well nigh overlooked the Sweet Potato bed, they are good for *niggers* good for *white folks*, good for horses, cows, hogs, sheep, poultry, in fact there



HORSE-POWER WITH THRASHER AND SEPARATOR.

THE machine as delineated in the above figure, is adapted to the use of one horse, which, with the aid of two men and a boy, can thrash at the rate of seventy-five to one hundred bushels of wheat, or one hundred to one hundred and fifty bushels of oats in a day. If only a single horse be used, a change should be made every two or three hours, as it is fatiguing to the animal working it. The machine can readily be fitted for working two horses abreast, by increasing the width of the rotary platform on which they stand, and increasing the length of the main shaft. The simple contrivance called the *shaker* or *separator*, which is attached to the thrasher, saves much labor in winnowing the grain, besides leaving it entirely free from straw.

The grain thrasher is placed on one side of the horse power, from which it receives its motion by a connecting band. The *separator* is shown in the above figure attached to the thrasher, over which the grain passes and is separated from most of the straw and chaff, thereby greatly lessening the subsequent labor of cleaning or winnowing. By the use of two horses, nearly double the quantity can be thrashed as in the use of one. The above, as well as many other varieties, may be had of A. B. Allen & Co., New York.

We find in the March No. of the Albany Cultivator, the following remarks on the above machine:—EDS. F. & P.

PATENT PORTABLE RAILROAD HORSE POWER, AND OVERSHOT THRESHING MACHINE AND SEPARATOR.—The *Prairie Farmer* states that this machine has been extensively introduced into Illinois, Iowa, and Wisconsin, during the past season, and that the result has been a general conviction of its superiority over any sweep machine known there. The editor says:—"We have it from several persons using them, that with one of these implements, two horses and four or five men have done as much work, day by day, as threshers with eight horses and ten men operating along side of them. One man informs us, that he threshed one hundred and sixty bushels in a day, of wheat yielding only eight bushels per acre. This we call large threshing. Another informs us that his wheat yielded from seven to nine bushels per acre, with straw enough to produce in common seasons twenty or twenty-five bushels. With the same span of horses working every day, and his machine elevated sixteen inches, his ordinary threshing was eighty bushels per day. Others in the same circumstances, by hard driving, or changing horses, have threshed from one hundred to one hundred and fifty, and in one case, as we have said one hundred and sixty."

is nothing living on the plantation that will not thrive on them. Get out your slips as early as possible, that they may have a long season to grow in, it is not important that you wait for a rain to plant your slips, whenever your slips will do to draw, put them out; plant them out toward evening, and give each slip about a gill of water, and ninety-nine times out of a hundred, they will surely live.

We have not time to look further over the plantation this morning, but trust that we shall meet again at the formation of the Agricultural Association, the second Monday in May, where all the improvements in Southern Agriculture may be discussed and each farmer give and receive instruction.

Cut Fodder for Stock.

Is our Norwich correspondent, W., satisfied with the advantages that have already been pointed out, as accruing from the practice of cutting fodder for cattle? Here is another instance, which might be said to spring from interested motives, that has long been exemplified in the farm management of a friend, whose possessions are large, and his ability equal to the demand for it. Our friend J. J. has, for some years past, chaffed the hay fed to the horses for the following prudential reasons, viz.: "I require all the strength of my teams in their labor, and am therefore careful to procure for them all the rest in my power. And as I find they fill them-

selves in less than one half the time, if their hay is cut fine and wetted and sprinkled with a due portion of corn meal, shorts, &c., it stands to reason that I should practise chaffing or cutting my hay on this principle, if on no other. And this I have long done at a trifling extra expense, my men, six in number, and of the right sort, taking the task of working the machine by rotation. And at no time is the value of this system of chaffing so discernable, as in bating time in the middle of the day, when the teams consume their allotted provender, and are at rest, in one half the time it used to take to stand over and grind up a lock of long, dry hay. So that take it one way with another, I calculate I save as much as they gain, by the operation of cutting my hay with a machine."—*Boston Cultivator*.

Old Tan Bark.

If wood ashes can be cheaply obtained, the best way to convert tan into manure, is to mix it, in layers—say, a bushel of ashes, unleached, to ten of tan—the heap to be made up in spring, worked over in midsummer and used the next season.

[*Albany Cultivator*.]

Cotton in Iron Hoops.

Dr. D. O. Williams writes to the Vicksburg Sentinel a letter in favor of iron hoops for cotton bales. He says, "cotton put up with iron hoops will not burn up in several days, nor will it sink if thrown

into the river. The writer never insures his iron hooped cotton against river or fire and there is a saving of fifty cents per bale on account of compressing."—The Dr. is a practical man and we have no doubt that the experiment would be worth trying. Hoop iron may now be bought in the Liverpool market at two cents per lb. and the duty will not amount to more than three mills per lb. Rope sells at Louisville for eight to nine cents per lb.

The Grass Tree.

THE Grass Tree which grows in India, from which the fibre is obtained for manufacturing grass cloth, it is thought would flourish equally well in the middle States of this country. One of our missionaries to China, Rev Mr. MacGowan, writes that he has drawn up for the Agricultural Society of India an account of the article, which may be useful to those who may feel disposed to attempt its introduction into the United States. The report will probably appear in the transactions of that Society for 1848-'49.

HOW TO KILL WORMS.—For lawns, use lime water—for gravel walks, corrosive sublimate.

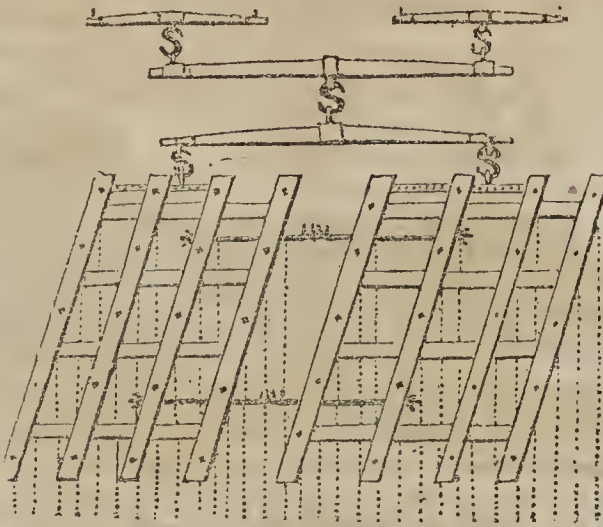
ACRE IN YARDS.—An acre contains 4840 square yards, or 70 yards in length and 68 1-7 in breadth—or 198 feet by 220.

Wheat—Its Mineral Food.

MR. WAY, Professor of Agricultural Chemistry in the Royal Agricultural College, Cirencester, England, has contributed to the Journal of the Royal Agricultural Society an extended and exceedingly valuable paper on the "Analysis of the ashes of plants." These researches embrace, among other matters of interest, the analysis of 62 varieties of wheat, so far to determine the amount of minerals which an acre of grain, including straw and seed, removes at each harvest. In straw, the quantity of ash per 100 parts ranged from $3\frac{1}{2}$ to 5 per cent. In one sample the ash was only 2.74 per cent.: in another the percentage was as high as 11. The mean of 40 specimens is $4\frac{1}{2}$ per cent. Those varieties of grain which had the most mineral matter in the straw were less liable to fall, and the stems were brighter and more exempt from mildew and rust.

The ash in wheat chaff varies from 7 to 16 per cent. In wheat the analysis of 62 specimens gave a mean of 1.67 per cent. This result is about the mean between the results obtained by Dr. Spengel, as copied by Prof. Johnston in his Lectures on Agricultural Chemistry, and M. Bous-singault. In looking over the tables, we find no ash of the seed which contains quite half its weight of phosphoric acid, and none that has so little as 40 per cent. The next most abundant element is potash. Of this the proportion ranges from 33 to 39 per cent. The third most abundant mineral is magnesia, which ranges from 9 to 14 per cent. After this stand soda and silica, the latter being mostly in the bran. Of lime, the figures run from $1\frac{1}{2}$ to over 8 per cent. Sulphuric acid and chlorine also exist in small quantities. In all cases the grain was cut close to the ground, and yet the wheat was nearly as heavy as the straw. The best yields were obtained by dibbling one seed four inches in drill and in rows twelve inches apart.

Considerable improvements are now making in England, in the art of feeding wheat plants with fertilizers that abound in available azote—a substance the agricultural value of which was first taught by Dr. Samuel Mitchell, of New York, about 60 years ago. It most abounds in cabbages or in cruciferous and leguminous plants. Azote is but another name for nitrogen, which forms about four fifths of the air we breathe. This atmospheric nitrogen is not available in wheat culture till it is combined chemically with hydrogen to form ammonia, or hartshorn; or with oxygen to form nitric acid (*aqua fortis*.) This acid combined with potash makes saltpetre, which is a most valuable fertilizer for wheat. Leached ashes and stable dung in a compost is a sort of nitro bed—a contrivance for converting atmospheric azote into nitric acid, just as burning wood converts the oxygen of the air into carbonic acid. The economical preparation of food for plants on scientific principles, is altogether too much neglected in this country. Probably not one-tenth part of the liquid and solid excretions voided on the farms in the United

SCOTCH HARROW.

THE annexed cut represents the Scotch harrow, which may be used single or double.

Sufficient attention is not paid to harrowing. It is the next most important operation after plowing. The harrow should run from four to six inches deep, cutting up all the lumps, and leaving the ground in a finely pulverized State.

States, is ever re-organized in the succeeding crops. After the manure is applied to the land, more than a moiety is lost before it enters the roots of plants.—We can never have good crops of grain, grass and potatoes, at a cheap rate, till we learn how to save all fertilizers, and work up the raw material of our several harvests to the best advantage. It is just as bad economy to apply too much as too little manure, to any given surface.

Two of the most expensive elements in grain culture are phosphoric acid and potash. These are derived from the soil alone, and are every where wasted, over more than 100,000,000 acres in this empire of farmers. Other elements equally necessary and nearly as expensive, are also thrown away in a thousand forms. It is high time there was a *poudrette* manufactory in every city and village in the Union; and that the fertilizing atoms so prepared be dribbled in with seed wheat, here as in England, Belgium and China. We evince a strange lack of common sense by continuing to impair the natural fertility of our arable lands, with the certainty that we must give more and more labor for every 100 bushels of potatoes, wheat, or corn which we annually grow. Keep all manure out of the rain. Be careful to save all ashes, and procure bones, gypsum, and lime.

[Genesee Farmer.

From the Genesee Farmer.
Management of Swine.

MESSRS. EDITORS:—I give you my experience in the management of swine.—In the first place, I take December pigs, let them run with the sows two months, then wean them and enclose them in a pen, in which they are moderately fed on corn with as much milk from the dairy, or good swill as will keep up a thriftiness. As soon as clover is in blossom, I leave off grain feeding and give clover three times per day until after harvest. I then turn them on to stubble.—They remain there till about the first of September, whence I remove them to a pasture adjacent to my corn field, and keep up their condition by giving them a small quantity of green corn. When the time of fattening comes on, I have my hogs in very fine condition to take on fast, I enclose them in a pen and feed them altogether on corn and water, and by the

time the weather is cold enough, which is the latter part of November, I slaughter them at the age of about eleven and a half months. With this treatment they weigh from 225 to 250 pounds dressed pork. In the mean time, my second litter comes on in June, which have the benefit of the stubble with the first litter, and running with the sows and sucking, they get a very fine start. At about two months old I wean them and enclose them in a pen, taking the same process as with the first litter, only forcing their growth more rapidly by giving good slops and as much corn as prudent, without fattening too rapidly for their growth. I continue this process until the first of January. I then slaughter them at the age of six and a half months. They will average 150 pounds of dressed pork very readily. This is no fiction, but matter of fact, from personal observation.

You will now perceive that from one sow, say having two litters in one year, eight pigs in each litter, the result will be as follows: First litter, eight pigs, weighing 225 to 250 pounds each, aggregate 1800 to 2000 pounds; second litter, eight pigs, average 150 pounds, aggregate 1200 pounds; which would make from 3000 to 3200 pounds of dressed pork from one breeder. This has been my treatment of hogs for the last few years, and I am satisfied it is the most profitable way I have ever tried. Brother farmers, this is an experiment on the Bedford hog, which has the qualities of enormous size and great tendency to fatten at any age.

EDMUND J. ROSENBERGER.

Rockingham Co., Va.

Age of Poultry.

Those who purchase poultry, will observe, that if a hen's spur is *hard*, and the scales on the legs *rough*, she is old. If the head is on, the comb will be thick and rough, and the under bill stiff, and hard to bend down. A young hen has only rudiments of spurs, scales on the legs smooth and fresh, claws tender and short, under bill short, comb thin and smooth. The same remarks, as to the legs, apply in part to turkeys and to geese.

THE road ambition travels is too narrow for friendship; too crooked for love; too rugged for honesty; and too dark for science.



The Farmer and Planter.

PENDLETON, S. C.

Vol. I., No. 3: May, 1850.

To Correspondents.

"MIDDLE COUNTRY."—We shall be greatly obliged to you for the grafts you have been so kind as to offer us, both for ourselves, and for distribution among our friends hereabouts; and in return, shall take pleasure in forwarding to you any of the following varieties—many of which, we have lately grafted or budded in a young orchard, viz: The Fall Holland Pippin,* Newtown Pippin,* Esopus Spitzenburgh,* Early Harvest,* Wine a Hays Winter,* Baldwin,* Golden Russet, Ritstone Pippin, Blue Pearmain, Northern Spy, American Summer Pearmain,* Roxbury Russet,* Tewksbury Winter Blush, Michael Henry's Pippin Buff, Golden Sweet, Dutch Meguone, Herefordshire, Rambo, Williams' Red, Jersey Sweeting, King Chapman Crab, Queen, English Russet, Drap d'Or, Yellow Bough, and several other sorts not so noted. Those marked with the asterisk, (*) will be found in the "list of selected fruits" by the "American Pomological Congress." Whether they may all prove to be first rate at the South may well be doubted however. We have also a select list of choice Pears and Peaches, any of which are at your service. We desire to encourage the raising of good fruit in the South, believing it will conduce to our comfort in many respects. If we were to eat more good fruit and less animal food, we should no doubt escape many bilious attacks we are now subject to. In raising fruits we have practised, since a boy, what we preach, for we are now engaged in setting out our *fifth* orchard. If every man could say as much, it would be well for the lovers of good fruit.—"Plant the tree. It will grow while you sleep. Feed it. Graft it. Nurse it, and it shall gladden the sight, and please the palate, of people yet unborn, and you shall have a memorial of your existence, springing from the green sod, when you shall repose beneath it."

GRADING LEVEL.—A "Subscriber" requests a description of the Level for grading hillside ditches. There are various constructions—we have seen descriptions of some that we could not understand. We use a very plain and efficient one, which any mechanic can make. We will describe it in our next number.

We are indebted to Hon. J. L. ORR for valuable Agricultural documents.

Addresses of Messrs. Broyles and Norton.

We have, in the present number, concluded Dr. BROYLES' Address, as well as that of Prof. Norton, commenced in former numbers; both of which have, no doubt, been found to contain much valuable information, notwithstanding we have had to lash up and serve them in piecemeals. As to Dr. B., we need not trouble ourselves to vouch for him, as he is too generally known to "Book Farmers" of the South.—Prof. Norton, whose address on under draining is just in place after Dr. B.'s remarks on surface draining, may not be so generally known in the South, though we trust he will be, as he is surely good authority on any subject he undertakes to elucidate. We have known him through the columns of the Albany Cultivator and Genesee Farmer, since his first essay, written when at the celebrated school of the great Liebig, at Geissen. We have read his letters, and watched his rapid progress to his present exalted station as Professor of Agricultural Chemistry in Yale College. We desire to introduce him to our readers, as we contemplate transferring to our columns much interesting and valuable matter from his able pen.

The editor of the Albany Cultivator, from which paper we take Prof. N.'s address, says:—

"During a residence of several years in England and Scotland, Prof. Norton had the best opportunity of witnessing the benefits of thorough drainage, and of becoming acquainted with the best modes which are practised in those countries. His knowledge of the subject has, therefore, enabled him to treat it in the most satisfactory manner, and we think we cannot do better service than lay his remarks, which he has kindly furnished us, before our readers."

We of the South want more light on the subject of draining wet lands. How many are there among us, even those that have drained, as they term it, and cultivated river, creek, and branch bottoms, that are aware to what depth water should be sunk below the surface, so as to effect a thorough drainage of the land? And again, how many are they who do not believe that if the water does not rise after the plow, the land is sufficiently drained for all agricultural purposes? Persons who have not read and thought much on this subject, would do well to give Prof. N.'s address a second reading.

Newberry Agricultural Society.

We learn the Newberry Agricultural Society has already taken steps to hold its annual meeting at Newberry Court House, on the 17th of July next. The committees have been appointed to report on that day on a great variety of subjects relating to agriculture, and, from the known character of the committees for practical and scientific intelligence, and the extensive arrangements that are making to unite the "useful with the sweet," we doubt not the occasion will be more than usually interesting. The Farmers and Planters of Newberry are setting a noble example in manifesting a warm zeal to promote the interests of agriculture. We wish we knew how to stimulate every community in the South

to a higher appreciation of Agricultural Societies, because we believe them to be one of the means by which the great reform in the mode of cultivating the soil is to be effected. It is not alone the principles established, and the facts that are made known, that render them valuable; they stimulate to *thought* as well as action; they excite a spirit of inquiry that dissipates prejudice, and lets in the light of reason and science. Every where it is said knowledge is power, but how much better to say the art of thinking is power.—Whatever begets an idea in regard to our vocation promotes success, and exalts us in the scale of existence. He, who goes upon his plantation and begins to *observe* which plow runs heavy, and which light, which land produces the best corn and which the best cotton, and the causes of these different results has taken the first step towards a successful planter. If by any thing seen, heard, or read in the books of men or of nature, he is led to *reflect*, and *think*, his time and means are well spent. The habit of *thinking* and *observation* is a fundamental desideratum, and the animated discussions of agricultural societies, the exhibition of noble animals, of implements of husbandry, of grains, fruits, articles of home manufactory, are well calculated to cultivate this, and we venture the opinion that the community, the members of which most frequently meet in societies, will be found in a correspondingly higher degree progressive in the art of tillage.

Our Packages.

In quite a number of instances, it appears from letters received, the "FARMER AND PLANTER" has failed to reach its proper destination. This is no fault of ours as all our packages are carefully directed and mailed. We are willing to forward a second when informed of the failure to receive the first copy, but acknowledge we would prefer that those, whose duty it is, would be a little more careful to transmit the numbers safely.

The Franking Privilege of Postmasters.

It seems from letters we receive, that the privileges of Post-masters are not in all cases very well understood. We give the following letter from the Post Office Department upon the right of post-masters to frank remittances to publishers of newspapers and public journals:

POST OFFICE DEPARTMENT,
Appointment Office, Dec. 31, 1849. }

Sir—The Postmaster General, after careful consideration of the question as to the right of Postmasters who have the privilege of franking, to frank letters to publishers of newspapers covering money for subscriptions or the names of subscribers, has decided, when the Postmaster is Agent for the publisher, he has the power to frank such letters, and his Agency will be presumed from the fact that he franks them. As no Postmaster has any authority to frank these communications but when he is such an agent, it is proper to regard him as acting in that capacity when he so conducts, until information is received to the contrary. In doing this business, the Postmaster must be regarded as entirely the Agent of the publisher, and not of the Department.

FITZ HENRY WARREN.

PATIENT industry accomplishes wonders. A little done daily makes much a year.

President and Secretary of Agricultural Societies.

If the President or Secretary of every Agricultural Society within the range of circulation of the "FARMER AND PLANTER" will forward us (free of postage) the name of the Society of which he is an officer, we will regard the act as a favor. We desire to pay our compliments to such associations with a copy of our paper.

We should be still further obliged by a report of the number of members belonging to the Society—the frequency of its meetings—and whatever pertains to the interest and usefulness of the Society.

Corn for Fodder.

How many of our readers have prepared a piece of ground on which to plant corn either in drills or broad cast for fodder? Let us advise such as have not, to look about them for a suitable lot, proportioned in size to the stock to be fed through the next winter. There is time enough yet. We planted last year in July, and the ground we intended planting the present year, has now a crop of Barley growing on it.—If planted early, two crops may be made. This we would not advise, however, unless the last crop be peas and given to the land, or fed off on it. We are not quite certain that two crops, cut off when the corn has come fully into tassel, would be more exhausting than one crop the grain being allowed to mature.

We have never made an estimate of the weight of provender made in this way per acre, but have seen various statements, ranging from eighteen to one hundred tons in a green state.—But suppose we can only make ten tons, of which we have no doubt from our own experience—would it not be a better business than to pursue the old and undoubtedly injurious practice of stripping the blades from corn? We say the undoubtedly injurious practice—it may be doubted by some, but not by any one who has made an experiment to test the matter as we have done. An account of the experiment, alluded to, was published a few years since in the *Greenville Mountaineer*, and re-published in other papers—but as many of our readers in all probability never saw it, we will here give all that is essential of it:

MR. EDITOR:—I promised you a statement of the result of an experiment made to ascertain what loss corn would sustain from being deprived of its blades at the usual time of taking fodder; and, also, whether cutting the corn at the roots, after the blades become dry to the ear, would lessen the product.

Twelve short rows, as nearly equal in appearance as could be found in the field, were set apart for the experiment. Of the twelve rows, Nos. 1, 4, 7 and 10 were left with the blades on until they were generally dry to the ear, and on some stocks even to the top, then cut off at the roots and "shocked" on the field until the other corn was gathered, then hauled in and shucked from the stalk. Nos. 2, 5, 8 and 11 were left with the blades: and Nos. 3, 6, 9 and 12 were stripped of their blades as late as is usual with us. Now for the result:

Nos. 1, 4, 7 and 10, when shelled measured 4 pecks, 1 gallon, 2 quarts and 1 pint, and weighed 70½ lbs.

Nos. 2, 5, 8 and 11, measured 4 pecks, 1 gallon, 2 quarts, and 1½ pint, and weighed 71½ lbs.

Nos. 3, 6, 9, and 12, measured 4 pecks, ½ pint, and weighed 55 lbs.

The fodder that was taken from the last numbers was carefully cured and kept to itself, and weighed eighteen pounds, which, added to the corn from which it was taken, amounted to seventy-three pounds, but one and a half pounds more than the corn alone from which no blades were taken, and two and a half more than that cut off at the roots. The experiment proves conclusively to my mind, what I long since believed, that by pulling fodder we deprived the corn of the weight, or very nearly so, of the fodder when cured. And furthermore that we would be better employed in making hay than in taking fodder from our corn. I neglected to mention in its proper place, that the corn was all well, and equally dried before being measured and weighed.

As stated in the extract this experiment was conclusive to us, as we believe one carefully conducted by any other person would be to him.—But notwithstanding this, we have continued to pull some fodder, gradually decreasing in quantity as our substitutes, such as above recommended, grass and clover have come in to supply its place. By this it may be inferred we are not of those that believe grass and clover cannot be raised at the South. If such as have bumps of credulity so small as to require them to see before believing will honor us with a call, we will give them an ocular demonstration on more than one farm in the vicinity of "Old Pendleton."

Original Communications.

Pursuit of Agriculture—Necessity of Reform among Agriculturists.

"There's one who
Wandered on, unknowing what he sought
And whistled as he went, for want of thought."

MESSRS. EDITORS:—There is no calling so ignorant of its true mission upon this earth, and as indifferent to all the aids and improvements to be derived from the labors of science, as the Agricultural. While the manufacturer, the navigator, the mechanic, and almost every other industrial pursuit are ever ready to seize upon any labor-saving, and profit-increasing improvement; we are content to plod on in the old track of our forefathers, delving away at the soil, ignorant of its character, its resources, the means of its improvement, and indifferent as to its fate.

It is not a profession with us—it is a calling. It is not a labor of love—but a drudgery. How many farmers know any thing of the elements of the soil they daily till—or of the plants they produce? How many know any thing of the habits and character of the birds, which they are always so anxious to destroy? but for which their crops might be ruined by the ravages of insects. How many know any thing about insects—which prey upon vegetation, and which upon insects?

How many are familiar with the diseases, and treatment of the different domestic animals, daily in their charge? Or what character of food makes muscle, bone and sinew, and what makes fat? who can explain the process of a plant's germination—the development of its tender leaf, its blossom and its fruit? How many know any thing about the application of machinery, or the principle of it? How many, in fact, understand the principle of stocking a plow? how to make it run with the least application of power, and do the best work.

And still, these are all things that should be as familiar to us as house-hold words—items of knowledge which add to the profit, as well as the pleasure of our profession.

Why is it so? It is a question well worth answering, an evil which it is high time to think about reforming. It is owing to the education of our children. They are brought up to look upon farming as a miserable drudgery—as an employment which no body follows if they can do any thing else, an occupation that requires no mental operation, and that to be a good farmer it is only necessary to read, write, and cipher and work hard six days out of seven. Every fellow who has gumption enough to decline *quis, quæ, quod*, is put to the study of Law or Medicine, or thrust into a mercantile establishment. Thousands annually are thrown upon professions, who drag out a miserable existence about country villages, and towns, mere hangers on to a *calling*, by which they cannot earn a support, and from which they detract dignity and importance. We have a mistaken notion, that it is the *profession*, which adds respectability and honor to the man. It is the man, who gives it to the profession. It by no means follows that because a fellow can measure calico, roll a pill, fill out a Sum. Pro., that he is par excellence a gentleman. If we want to send a member to the Legislature, he must be a lawyer or doctor—to Congress, he must be a lawyer or doctor—to a convention of any sort—a lawyer or doctor.—If you want a deed drawn, a will written, a simple contract—you must go to a lawyer or doctor. Now we wish to be understood, that we are not warring upon any profession—we would not take a single leaf from the laurel that encircles their brows. We would not make *their* importance less—but ours more. It is *our own* fault. If they are better educated, they deserve these honors—but are we planters and farmers true to ourselves? Ought we not to be thinking of elevating our profession to its proper position in society. Jefferson remarked that "those who labor in the earth, are the chosen people of God, if ever He had a chosen people, in whose breast He has made a peculiar deposit for substantial and genuine virtue. Corruption of morals in the mass of cultivators, is a phenomenon in which no one, nor nature has found an example. It is a mark set on those, who, looking up to Heaven, and to their own soil and industry, depend not upon the casualties and caprices of customers. Dependence begets subservience and degeneracy, suffocates the germ of virtue, and prepares fit tools for the designs of am-

bition. Generally speaking, the proportion which other citizens bear in the state to that of husbandmen, is the proportion of its unsound to its healthy parts, and is a good enough barometer, whereby to measure its degree of corruption."

With what a pencil of light the great philosopher has here foreshadowed the present unhappy condition of our Republic. Let the Farmer and Planter lend us a helping hand in this matter. Let us try to reform this miserable state of things. Amid all the progress of the age, Science is standing upon her dizzy height beckoning us to come on. Let us shake off this professional incubus and be true to ourselves.

BROOMSEDGE.

Big Branch, S. C., April 20, 1850.

Subsoiling and Turning Land.

MESSRS. EDITORS: Feeling a particular interest in the success of agriculture, to which I have devoted so much of my life, I am induced to give you some of my views, and practice in subsoiling land, which I find to correspond with the experience of other men.

The results of subsoiling I find to vary very much according to the kind of land, and the season of the year in which the work is done. An indiscriminate use of the sub-soil plow, may occasionally have a bad effect upon some kinds of land, which would tend to discourage a new beginner; when on land of another character it would be productive of the most happy consequences—so my experience teaches me.

I would never use the sub-soil plow on sandy land in the fall of the year; especially where the sub-soil is also sandy. I once tried it to the depth of fourteen inches, in September 1845, and have not made a good crop on the land since.—The work was done in this way: the first furrow was run with a turning plow, drawn by two horses, to the depth of six inches; another hand followed after in the same furrow with a very large coulter drawn by two mules, to the depth of eight inches.

I hope that other persons may be as much profited by learning of this, my error, as they may be by hearing of my success hereafter. To report a failure, and the true cause of it, in any undertaking, is often of more service to others, than to learn how an individual may have been successful in a particular enterprise.

So I think the cause of my failure in this instance was doing the work on this sandy land, in the fall of the year, when the winter rains would pass down, and carry away the richest portion of the soil, instead of doing the work in the spring, when just about to put in the crop.

I made another trial in the same way that the above was executed, though on a poor piece of red clay land, with a light crop of red clover on it. In this instance I did not plow near so deep as in the first, for my teams could not draw the plows near so deep as in the sandy land, though both were quite dry when the work was done, for I have long thought, that land is injured more by plowing one time when wet, than two crops would do with proper culture. So the clay land was turned with the first plow

about three inches deep, and with the second about five inches deep. And I never saw land improved as much by one plowing in my life, as it was. Both pieces were treated just alike, at the same season of the year, one was nearly spoiled, and the other improved nearly one hundred percent.

In turning land over in this climate, farmers ought to be particular to use a sound discretion, for such plowing must be done with more caution in this climate than in higher and colder latitudes, because of the great effect which the sun has upon our thin and light soils. There can be no great advantage in turning up high thin land to the sun, unless there is something on top which ought to be put into the soil. Where there is a good, green crop of clover, peas, or grass to put in, it may be done at any season of the year if the plowing is not done too deep. But all green crops intended to improve the soil, ought to be turned under before the seed mature, because all crops take as much from the soil to mature the seed, as they do to bring them to the bloom.

I have turned land at all seasons of the year, sometimes deep, and sometimes shallow. I have turned broomsedge four feet high in January, and killed it out completely; my plow ran very steady, and turned it top under, at about two inches depth, only deep enough to get fairly under the sod. The rain and freezing killed it effectually.

I have turned under grass crops in June, that were two feet high, with the most favorable results; though this grew in better land, than that which produced the broomsedge, and therefore the grass took deeper hold in the soil, and had to be plowed a little deeper than the sedge; tho' only deep enough to get the plow to hold well. This was turned between three and four inches deep, and harrowed over with a three horse harrow.

I once injured a piece of red clay land near this town, very much, by turning it a little too deep in August, when the land was a little too wet; and the weeds had nearly matured their seed, of which there was a good crop, although it was thin land. It was turned up to the sun four or five inches deep.

I am inclined to think that if a man would take an impartial retrospect of his life, and note down the errors into which he has fallen, such a history would be of more service to his sons than if he were to pass these over, and only give them an account of such schemes, as he may have prosecuted with success. The former would excite their caution, and the latter would stimulate their energies.

My hope is to encourage the youth; old heads think they know enough already.

Yours with esteem,

H. MONTAGUE EARLE.

Greenville C. H., S. C., April 24, 1850.

REMARKS.—We suspect the injury in the case stated above was done by the turning plow, and not by subsoiling as our friend supposes. Land of the quality described will not bear turning six inches at a single operation without

certain injury to the succeeding crop. This our own experience has long since taught us. Such land should be broken into very gradually until the desired depth is obtained.

We should not apprehend injury from subsoiling our lightest upland to any depth even twenty inches—for although, on the occurrence of heavy rains the soluble salts of the soil might sink with the descending waters, yet on the return of dry weather all would again be brought back to the surface by the aid of capillary attraction. In "bottom land," where the sub-soil plow might reach a quick sand, there would be danger of loss by a leaching of the soluble substances of the soil; but not so with upland, the soil of which, almost invariably rests on a sub-soil of clay.—Eds.

Facts for Farmers.

MESSRS. EDITORS:—I have received a copy of your first number of the Farmer and Planter, and as we have talked on other subjects in times long passed, I propose to welcome you in your new vocation with a plain farm talk, and give you a few of the results of twenty years experience and reflection on Cotton culture, for tho' my attention has been directed to all the usual provision products of our country, still, Cotton has been my main product—provisions &c., adjuncts. In the first place procure lands that were or are fertile in their forest state, that indicate that they have the proper proportions of mineral elements, both in the soil and subsoil; without which it is difficult and expensive to make soil permanently fertile. I have found those lands more valuable, though ever so much worn and exhausted, than moderately productive lands in their virgin state.

Next, a Farmer should avoid debt, and never spend money before he has made it, if the interest and expenses do not sink his estate, it is sure to lead him from the direction of his better judgment into shifts and expedients, and deranges that steady purpose and pursuit that alone ensure thrift and improvement.

Now as to the best preparation for a practical Farmer, I think there is at this time much error and misdirection; at least, many are drawn off from the most valuable part of a Farmer's education, I mean a regular physical training in the practices and manipulations of Agriculture. There we will find most of the well tested theories practised and illustrated. There we will acquire habits of business and attention at the proper time. There we will acquire patience and self-control for superintending and executing the details of a plan or a system; and there we will acquire the tact and physical ability, and learn how to lay off for and judge of the execution of our subordinates.

Theory illuminates and very much enlarges any well trained practical mind, but converts into vapour mere scholastic phrases unsubdued to the laws of *Truth* and rigid *accuracy*. All the natural sciences, Chemistry Geology, the physiology and pathology of both plants and animals—the means of preserving health and curing diseases should be studied.—Enlarge the scope of your studies of creation and Nature's laws, as far as paramount duties will admit, but never let them supersede an apprenticeship, a regular field training to the practices and details of agriculture. I never knew a Planter who learned to talk of scientific agriculture, of Liebig and Erimacansis, before he learned to make a plow stock, that could ever take his hands and make a fair average crop.

Ology, instead of work, is the spirit of the age. I advocate an elementary intellectual training before, and a scientific reading after a regular apprenticeship to the *trade of Agriculture*.

When on his farm, a Planter can profitably employ all his *common sense* and discriminating economy; and here I think experience is a better guide than theory, and will continue to do so until Nature's laws are better understood and classified. I have known men to spend much time in hauling manure when the same result could be produced with half the expense. I have known men to spend twice as much on a piece of land as it could be purchased for or sold when done.

Every Farmer should make his plantation his special study, its defects and resources, and calculate accurately the expenses and profits of this, that and the other before he commences, this would save much expense and many a disappointment. Order, system and thorough execution are indispensable to success. I have found a bad system well executed better than a good one badly executed.

As we have but little perennial or turf grass, we have to cultivate more land for provisions and provender than our Northern neighbors (and instructors in almost every thing else,) have to: true we require less winter food for our stock, but this want of the grasses must modify all our operations in fertilizing and cultivating, and indeed must make for our section an agriculture peculiarly Southern.

When I commenced this scrawl, I intended to say something about subsoil plowing, Bermuda grass, the cornfield Pea, &c., &c.—what I considered a more

economical mode of fertilizing than compost-heaps and hauling out manure, and the general economy of Cotton planting, its prospects and expected results as a vocation and profession, but find my paper, nor your time and patience equal to the tediousness of my discourse, and must close by wishing you success in concentrating and diffusing around the valuable experience and well studied conclusions of a section of country, unsurpassed in intelligence and all those qualities that create confidence between man and man, by no people I have known, and where one of the most valuable and authoritative Agricultural Societies has existed longer than the recollection of man.

Yours truly,

J. S. W.

Mound Farm, Hancock Co., Ga., Apr. 14, '50.



Horticultural Department.

Fruits and Fruit Culture for the South.

GENTLEMEN: I propose to while away a leisure hour, by inditing a short article for your valuable paper. Fruits and Fruit Culture for the South, shall be my text. As I am in the full tide of successful experiment, with a large orchard of various and valuable fruits, I can speak ex cathedra on the subject.

In the outset I will remark, that so engrossed have we hitherto been, with the "great staple," that we have not paid that attention to this matter, which its importance deserves. A better spirit, however, I hope and believe is abroad in the land—to foster and encourage that spirit, is my present object. From my own experience I am well convinced, that for many of the fruits not hitherto much cultivated, the middle and upper portions of South Carolina are admirably adapted. Among these I will name the Apple and Pear—the latter especially. But to raise these successfully and in perfection, two things are absolutely indispensable, a *suitable location* and *proper after culture*. In reference to the first, the fact that they flourish best in the highest latitudes, impresses the necessity of selecting a northern or eastern hill side, open to the winds of winter, and protected from the sun as much as possible, in early spring. Such is the exposure of my own and it does well; and such can every one owning a farm find upon his own land.

After you have made your selection, the land should be well and deeply plowed, and manured

broadcast, if it is not rich already. This being done, dig your holes about three or four feet square, and twelve or eighteen inches deep, (according to the size of the tree) and forty feet apart each way; then take your tree and place in the hole, and fill about half full with the top soil, and so let it stand, until one or two heavy rains have fallen which will settle the earth around the roots and secure its living—after this you may fill up the hole, straighten up the tree and ram it tight. No manure should be applied to the root of the tree the first year, as I have seen decided injury result therefrom. But after your orchard is well set, you may apply such as is suitable under the tree and dig it in.

The next thing is the culture. And here I will remark, that a young orchard requires as much attention for a few years, as any thing else. It must be plowed and cross plowed frequently, or cultivated in some of the clean crops, such as cotton or potatoes, taking care not to run so close to the trees as to tear their roots, or injure their bodies, with the singletree, &c.—the weeds and grass under the trees must be kept down with the hoe. After a few years, an occasional plowing will answer every purpose.

I have already said, that no manure should be placed in contact with the tree or its roots when planted. After a year or so, you may so apply it—for this purpose any will answer, but cotton seed will be found best. Charcoal combined with a small quantity of lime, will be found a most valuable adjunct, highly promotive of the growth and health of the trees. To the pear, I have applied with most gratifying results, broken bones, scaler and small fragments of iron from the blacksmith shop. As a whitewash, lime has been strongly recommended, but my experience entirely condemns it. For apples it may do, young pears I know it will kill, Downing and Lee to the contrary, notwithstanding. Something far better, is the application with a large paint brush, of soft lye soap, two or three times a year, to the bodies of the trees, as high up as the first limbs. This protects them from the rabbits, destroys the insects, and their eggs, removes the moss, and leaves the skin clear, fresh, and beautiful. It is withal a most valuable manure, and no one who has an orchard will ever regret the time spent in the application. Should the tree become, what is vulgarly called hide bound, one or two incisions through the bark with a sharp knife, extending from the limbs to the root, with the soft soap used as stated will prove an effectual remedy. With these directions, and proper and timely pruning, any one desirous of it, can have the very best of fruit.

Some persons have a perfect mania for collecting a great variety of fruit trees. This is decidedly wrong. A dozen apples and half dozen pears of the most approved kinds, ripening from June to November, is enough for any one, who is not by profession a nursery-man. You may have as many of these as you please, but let me repeat that it is nonsense to increase the varieties.

Trees from the North, as a general rule, do not do so well. Care and attention however for a few years, will to some extent acclimatize them.

but many will die from our hot sun, in spite of all we can do. This is particularly the case with the apple—the pear being hardier and more tenacious of life, does better. It is therefore important, that trees should if possible, be procured from Southern nurseries. In Georgia there are several extensive ones, and in our own State several commencing. Mr. Scott, in Columbia, will in a few years be able to supply the demand of the whole State, and I hope he will be encouraged.

We have many native seedlings of the Apple, and many long since acclimatized, which if collected together would be all we desire. I have one in my orchard, which, for the want of a better name, I shall call the Strother, (having first met with it when a boy, on the premises of the late Gen. Strother, of this District, more than twenty-five years ago) which I unhesitatingly assert to be the best I have ever seen. It is large, oval shaped, with deep red stripes on a pale red ground on the sunny side, and grows on the ends of the bending twigs—ripens in October.—When first pulled the flesh is sweet but tough; after it mellows it is melting and perfectly delicious—with care will keep till June. For the first time, I met with the same apple the past winter, in the markets of Columbia and Charleston, brought from the North, and paid five cents a piece for them. I have no doubt it was taken from the South by some enterprising Yankee.—But it is ours, by right of possession at least, and they shall not have the credit of it, if I can help it. I have grafted a good many, and will take pleasure in sending you half dozen next winter, if acceptable, and a conveyance can be found. I will also send you any number of grafts for distribution.

It strikes me, Messrs. Editors, that your section at the foot of the mountains, might be made the "Fruit garden" of the South. With the facility of railroad communication which you will soon have with the seaboard, I see no reason, why you should not drive every Northern apple and pear out of the market. Only determine that it shall be done, and it will be done. A strong resolution will work wonders, when aided by industry, and favorable circumstances.

When the spirit shall again move I will discourse about other fruits &c.

MIDDLE COUNTRY.

Mulching Fruit Trees.

A correspondent of the Horticulturist planted 150 trees in an orchard in very good but rather dry soil. All were planted with equal care, but a third of them were *mulched*, or the surface of the ground when planted covered with 6 inches of litter. Those thus treated all lived; but 15 of those not mulched died in the hot dry weather of midsummer. It is not stated that the soil was kept clean and mellow around them; which will often save the life of trees, when they would die of neglect.

PRUNING RESINOUS TREES.—The worst time to prune these is in the spring when they are beginning to grow, the safest in autumn or winter.



Floricultural Department.

Value of Flowers.

"The primrose I will pu', the firstling o' the year,
And I will pu' the pink, the emblem o' my dear,
I'll pu' the budding rose, when Phoebus peeps in view,
The hyacinth for constancy wi' its unchanging blue.

The lily it is pure, and the lily it is fair,
The daisy's for simplicity and unaffected air:
The hawthorn I will pu', wi' its locks o' siller gray,
But the songster's nest within the bush, I winna take away.

The woodbine I will pu' when the evening star is near,
The violet for modesty which weel we fa' to wear
I'll tie the posie round, wi' the silken band o' love,
And a' to be a posie to my ain dear May."

While men of all classes and sciences are alive to the great importance of the subject of Agriculture, and are indefatigable in their search after materials for its improvement and extension, we must not allow the mantle of oblivion to rest upon her twin sister Horticulture, who, if not as useful and necessary as the former, is yet the beautifier of her more solid worth. Flowers are to our beautiful world, what drapery and furniture are to some noble structure; creation would look sombre and dull without her jewels, as would the walls of a palace, devoid of taste and embellishment, be cold and uninviting.—A fondness for flowers is one of the most chaste and natural of our tastes, and seems in a greater or less degree to be inherent in all: they are emblems of purity and innocence, which an Infinite Goodness has given us to minister to our pleasures, as well as to beautify the whole face of nature. Our country, though an intelligent and independent one, has made but little progress in gardening and ornamental planting. Nature has been bountiful in the bestowal of innumerable rare and beautiful plants, that await but the hand of taste to make the humblest home, to blossom as a second Eden. We are told by travellers that the Chinese laugh at the gardens and plantations of the Europeans, which are laid out by rule and line, they prefer showing a genius in works of this nature, and conceal the art by which they direct themselves, by adhering as closely to nature as their improve-

ments will admit of. It has been a general remark also, that the value set upon, and the cultivation of flowers, is a certain indication of the progress of civilization and refinement: and apart from the pleasure and healthful exercise of tending them, to those fond of research, it is a source of gratification and amusement to find out where the most prized and beautiful first flourished, and how they have become ornaments of our own gardens—the Tuberose for instance. It is said that this beautiful flower was first brought into Europe from the East Indies, by Father Theophilus Minuti, and to have been established by him in France about the year 1590. The double flowering variety was obtained from the seed by a gentleman in Holland, who for many years was so tenacious of the roots, even after he had propagated them in such plenty, as to have more than he could plant, that he caused them to be cut to pieces, to have the vanity of boasting, that he was the only person in Europe that possessed this flower.

The pleasure we take in a garden is one of the most innocent enjoyments in human life: its associations are all pure and unalloyed. It was the habitation of our first parents: it was the resting place of our great Redeemer, and it has a natural tendency to fill the mind with calmness and tranquillity, and to allay all turbulent passions. It presents to us a subject for infinite gratitude to a kind Providence who has provided in abundance not only the necessary aliments of life, but has contributed so liberally to our pleasure and gratification, and from the satisfaction these pursuits yield, they must conduce to a laudable, if not virtuous habit of mind, and there is a striking analogy between the culture of the garden and the mind.

"As I walked the other day in a fine garden, I observed the great variety of improvements in plants and flowers, beyond what they otherwise would have been, I was naturally led into a reflection on the advantages of education, or modern culture, how many good qualities in the mind are lost, for want of the like due care in nursing and skilfully managing them; how many virtues are choked by the multitude of weeds which are suffered to grow among them; how many excellent parts are often starved and useless, by being planted in a wrong soil; and how very seldom do these modern seeds produce the noble fruits which might be expected from them, by a neglect of proper manuring, necessary pruning, and an artful management of our tender inclinations, and first springs of life." WILLY.

Housewife's Department.

Elegant Women.

A cultivated taste marks a woman of elegance and refinement, as decidedly as a knowledge of classical literature does a gentleman; and there is nothing in which female vulgarity is more clearly shown, than in want of taste. This is an axiom that I think will not admit of any dispute; but it is a question how far it may be acquired. A delicate taste must to a certain extent, depend upon the organization of the individual; and it is impossible for any rules to be laid down which will impart tastes to persons utterly devoid of it. But this is very seldom the case with women; as it is one of the few points in which women excel men. Men may be, and probably are superior to women in all that requires profound thought and general knowledge; but in the arrangement of a house, and in the introduction of ornamental furniture, and articles of *bijouterie*, there can be no doubt of the innate superiority of woman. Every one must remark the difference in the furnishing of a bachelor's house, (we have been an old bachelor ourselves) and one where a lady presides: the thousand little elegancies of the latter; though nothing in themselves, adding, like ciphers, prodigiously to the value of the solid articles they are appended to.—*Lady's Companion*.

Weights and measures.

As all families are not provided with scales and weights, referring to ingredients in general use by every housewife, Dr. Brown gives the following list:

WEIGHT AND MEASURE.—Wheat flour, 1 pound is 1 quart; Indian Meal, 1 pound 2 ounces is 1 quart; butter, when soft, 1 pound 1 ounce is 1 quart; loaf sugar, broken, 1 pound is 1 quart; white sugar, powdered, 1 pound 1 ounce is 1 quart; best brown sugar, 1 pound 2 ounces is 1 quart; eggs, average size, 10 eggs are 1 pound.

LIQUID MEASURE.—Sixteen large table-spoonfuls are $\frac{1}{2}$ a pint; eight table-spoonfuls are 1 gill; four large table-spoonfuls are $\frac{1}{2}$ a gill; a common sized tumbler holds $\frac{1}{2}$ a pint; a common-sized wine-glass holds $\frac{1}{2}$ a gill.

Domestic Items.

WASHING FLANNEL.—If white, it should be done in as hot water as possible, with hard soap.

SHRINKING OF FLANNEL.—Enclose new Flannel in a bag; put it into a boiler with cold water; heat and boil it. It will never shrink any more after this operation, and should be then made up into garments.

FRAGMENTS OF BREAD may be all saved by making them into toast and puddings; and they also make good pancakes, by soaking over night in milk and the adding an egg or two, a little salt and flour.

PRESERVES.—If fermenting, boil them and add a little powdered saleratus, say size of a pea for a quart or two, but more if much fermented.

FEATHER BEDS should be aired once a

week; but do not hang them out of the front windows, unless you wish to add a picturesque expression of your dwelling.

MORNS.—Camphor (not tobacco) will repel moths. Flannels well wrapped in linen, are safe from moths. But they should be well brushed about the first day of summer, as the moths then begin to increase.

SUET AND MINCE-PIE MEAT.—If boiled and chopped, may be kept a year, in a stone jar, under molasses.

VIALS, with medicines, should be kept constantly and very distinctly labelled—it would prevent some fatal accidents.

MOLASSES, used for cooking, is immensely improved by previous boiling and skimming.

STRAW BEDS are generally improved by being boxed at the sides, or stitched through like mattresses.

SAUSAGES.—The best proportions are 3 lbs. salt, 10 oz. sage, 10 oz. pepper, to every 100 lbs. chopped meat.

EGGS, wholly embodied in salt, the small end downwards, will keep from one to three years perfectly fresh.

Useful Receipts.

Carolina Rice Cake.

Boil half pint of rice till it has dissolved into a thick jelly. While warm, mix into it a large lump of fresh butter, and a salt-spoon of salt. Pour into a bowl a moderate sized tea-cup full of ground rice-flour, and add to it as much milk as will make a tolerably stiff batter. Stir it till it is quite smooth and free from lumps. Then mix it thoroughly with the boiled rice. Beat six eggs as light as possible, and stir them gradually into the mixture. Bake it on a griddle, in cakes as large round as a saucer. Eat them warm with butter, and have on the table, in a small bowl or tureen, some powdered sugar and nutmeg, for those who like it.—*Georgia Citizen*.

Lemon Pies.

We have tested the value of the following receipt, but sugar is decidedly preferable to molasses in the following preparation of the pie. One lemon, too, is rather a small allowance for two pies.

[*Family Visitor*.]

"In this year of scarcity of fruit, it may be desirable to know that a good pie can be made simply of lemon and molasses. Press out the juice of a lemon into two tea-spoonfuls of molasses, grate in the dried peel of another, cover a plate with a layer of crust, spread over some of the mixture, lay on a thin crust, spread another layer of the mixture, and over that lay a top crust; bake thoroughly, and you will have an excellent and wholesome pie. One lemon to two pies."

How to make Coffee—Parisian Coffee.

This is made by leeching. Many prefer it to any other mode. It is very easily made and requires nothing to settle it.—Any common coffee pot will answer the purpose, with a strainer formed to fit the top. It is made in form like a cup with a fine strainer made by piercing the bottom full of small holes very fine, and above that another not as fine, on which the ground coffee is laid. Pour on boiling water, using the same quantity as in oth-

er modes, and cover it close; when the water is all drained through, which will be in ten minutes or less, it is ready for the table. Some have biggins made in the French mode, but the other answers the same purpose, and is equally good.—It should stand near the fire while cooking. It will leave the dregs tasteless.

SPONGE PUDDING.—These puddings must be made with the greatest exactitude. Cream, a quarter of a pound of butter, and add four eggs, the whites and yolks, two ounces of white pounded sugar, and two table-spoonfuls of flour: beat the whole up slowly, fill six small cups, and bake them for exactly twenty minutes. Serve with wine-sauce.—*Georgia Citizen*.

FOR SPRAINS, WIND GALLS, AND BRUISES.—Take 1 gill spirits of hartshorn, 1 gill spirits of turpentine, 1 gill laudanum, 1 gill sweet oil, 1 oz. camphor, 3 oz. spirits wine, 1 oz. Castile soap; mix all together.—The embrocation formed of the above ingredients I have tried, and find that it will certainly remove wind galls and swellings occasioned by sprains. It will cure blood or bog spavin if attended to in time. I would also say to persons afflicted with rheumatism, give it a trial.—*Ibid*.

CURE FOR RINGBONE.—Take 10 grains sublimate of mercury, 4 oz. spirits of wine, 2 drachms tincture of musk, 12 oz. rose water; mix together and rub on the disordered place with a brush, two or three times a day. This I have never given a trial; it is said, however, to have the desired effect.—*Ibid*.

TO CURE WOUNDS, CUTS, AND BRUISES IN HORSES.—Take 1 oz. blue vitriol, 1 oz. Spanish flies, 1 pint of soot; pulverize and mix with 1 lb. of hog's lard. I have made use of the above for a number of years, and find nothing to excel it. Horses receiving severe kicks, or having sore backs, it will heal in less time than anything else I ever tried.—*Genesee Farmer*.

TO PROTECT SHEEP FROM THE GAD FLY.—In August and September this fly lays its eggs in the nostrils of sheep, where they are hatched, and the worms crawl into the head, and frequently they eat through to the brain. In this way many sheep are destroyed. As a protection, smirch their noses with tar. Lay some tar in a trough or on a board, and strew fine salt on it; the sheep will finish the operation. The tar will protect them, and what they eat will promote their health.—*Farmer's Cabinet*.

CURE FOR GRUBS IN HORSES.—Add a pint of strong vinegar to a cubic inch of chalk; when the effervescence ceases, drench the horse with the liquid from a bottle.

[*Southern Planter*.]

GALLS ON HORSES.—Galls on horses may be cured by applying white lead, rubbed on dry, or diluted with milk or grease. A few applications are sufficient. This will also prevent white hairs from growing over the wound, unless they are of the natural color.

FOR SPAVIN.—Take 1 gill spirits of turpentine, 1 gill aquafortis, 1 gill quicksilver; put into 1 quart of small beer, and let it stand for two days before using.—The manner of using is to tie a rag around the end of a stick, saturating it with the mixture, and apply it to the part affected two or three times a day. If it cracks the skin, do not use it so often. A little exercise is necessary.—*Ibid.*

Treatment of Male Breeders.

It is generally customary to keep stallions and bulls confined in the stable, in rather low condition till the close of the winter or spring, and then commence feeding them high, preparatory for the season, still holding them in greater or less confinement. Such a course is entirely wrong. In a state of nature, the males wander at will, enjoying the benefit of fresh air, and take due exercise. Hence the general superiority of wild over domestic animals. The former never degenerate in a state of nature, but the latter do, unless great pains are taken in breeding them. The wild horse, the ass, the ox, the buffalo, and the deer, of the present day, are undoubtedly just as perfect as they were thousands of years ago.

As they cannot be properly controlled, it does not answer to let stallions and bulls run at large, in the pasture with females; and as exercise and fresh air are absolutely essential to their good health and vigor, the best way to obtain these, and keep them in good condition is, to break the former when quite young, to the harness as well as the saddle, and the latter to the yoke, and work them regularly, but moderately.

A male, kept fat and in close confinement, his muscles are relaxed, and he is in a weak feverish state. Now, like produces like, and the result is, that while in this condition, it is impossible for him to get so vigorous and hardy a stock as he would, if moderately fed and properly worked or exercised. But when worked, great care should be taken that he is not put to cover when in the least exhausted condition. Excessive service, or overwork, must be guarded against, equally with idleness or too high feed, as both are objectionable.—*American Agriculturist.*

SOAKING CORN IN SALTPETRE.—I have never yet heard of corn soaked in saltpetre causing an explosion, after being taken into the crop of Mr. Crow; but I do know that this crow family do not relish corn soaked, in it. I have tried the plan of feeding crows by strewing corn, not soaked, on the ground, and they soon called together the whole family, even to thirty-third cousins, for a regular feast, and soon ate up the whole given them, after which they pulled up half a field of twenty acres besides, as *dessert*, not leaving even the third planting.

I have soaked corn in saltpetre for several years. It gives the young plant a healthy appearance and vigorous growth in the start, causing it to mature almost two weeks earlier than when planted without soaking.—*Ibid.* B.

A Valuable Southern Grass.

On a recent visit to Millwood, the residence of that noble Carolinian, Col. Wade Hampton, we noticed a most beautiful grass plot, growing in all the luxuriance of spring, although in gloomy wintry February weather. It is true that such a green spot there appears far more pleasant to the eye than such a spot would in spring in a grass growing country; because here all around, the earth presents but a bare surface, almost, if not entirely incapable of sustaining cultivated grasses, except at the great expense of preparation which Col. H. has given to the ground now glowing in its verdant coat.

This grass is as yet without a name.—Dr. Bachman, the eminent naturalist of Charleston, at first thought it was the American Canary grass, but on further examination expresses some doubts. It grows about two feet high, with top and seed somewhat like blue grass, (*Poa pratensis*,) only much larger. It is a native grass, and may be found from the seaboard to the mountains of the Atlantic Southern States; and Col. Hampton says will endure frost and drought better than any other grass he has ever seen growing at the South.—*Ibid.*

NAKED FALLOWS AND NAKED SOILS TEND TO STERILITY.—This sentence ought to be adopted as a standing motto of every agricultural society in the country.—Every country school house should have it printed upon the wall, with the addition that *shade always improves land*. Even a stone or block of wood always makes a rich spot where it lies. Why is the ground where a building has stood, or even a common rail fence, always rich? It is because it has been shaded. One of the most ruinous systems of cultivation ever pursued, is that of "resting land." Does forest land ever rest? There is just as much need that it should, as to rest corn land. I believe that the land is more exhausted by the burning sun after corn ripens, than by the corn grown upon it. Hence the importance of covering the ground with something that will make shade, after harvested. I differ from the writer of this important article, in one point. I very much doubt the policy of keeping cattle upon a grain farm to eat off the crops and scatter their "droppings." I have a very shrewd, queer sort of a neighbor, that raises more corn, wheat, oats, and rye, than any of us, who says there are four or five great curses that he constantly prays to be delivered from. These are "rum, politics, hounds, hogs, and horned cattle." With the two latter, are included the curse of fencing against your neighbors' stock when you do not keep any yourself; with the first, the curse of neighborhood quarrels, about the "unruly animals;" and with the second, the curse of sending such men to make laws, as will not do away with the odious fence law, for fear of losing popularity among that class whose stock are always pirating upon their neighbors; with the third, the curse that prevents the growth of millions of pounds of wool, because the dogs kill the sheep.—*Ibid.*

GOOD ADVICE TO FARMERS.

CONSIDER your calling the most elevated and important; never be ashamed, nor afraid of the old hat or the working close apron. Put off no business for tomorrow that can be done to-day.

As soon as the spring opens and the frost is out of the ground put your fences in order.

Plant no more ground than you can well manure and cultivate to advantage.

Never hire a man to do a piece of work which you can do yourself.

Every day has its appropriate duties—attend to them in succession.

Keep no more stock than you can keep in good order, and that of the best kind.

Never "run in debt" without a reasonable probability of paying at the time agreed.

Remember that economy and industry are the two great pillars of the farmer's prosperity.

Take some good family newspaper and pay for it in advance. Also an agricultural paper.

Never carry your notes in your pocket book, for the desk or trunk is a more appropriate place.

Keep them on file and in order, to be found when wanted.

Never buy any thing at auction because the article is going cheap, unless you have use for it.

Keep a place for your tools, and your tools in their places.

Instead of spending a rainy day idle, repair whatever wants mending, or post your accounts.

By driving your business before, and not permitting your business to drive you, you will have opportunities to indulge in the luxury of well applied leisure.

Never trust your money in the hands of that man who will put his own at hazard.

When interest or debt becomes due, pay it at the time, whether your creditor wants it or not.

Never ask him to "wait till next week," but pay it. Never insult him by saying "you do not want it." Punctuality is a key to every man's chest.

By constant temperance, habitual moderate exercise, and strict honesty, you will avoid the fees of the lawyer and sheriff, gain a good report, and probably add to your present existence years of active life.

When a friend calls to see you, treat him with the utmost complaisance, but if important business calls your attention, politely excuse yourself.

Should you think of building a house, be not in a hurry, but first have every material on the spot, and have your cellar as large as the frame.

Keep a memorandum book—enter all notes, whether received or given—all moneys received or paid out—all expenses—and all circumstances of importance.

In December reckon and settle with all those with whom you have accounts—pay your shop bills and your mechanics, if not promptly done at the time.

On the first of January reckon with yourself, and reckon honestly—bring into

view all debts and credits, notes and accounts. Ascertain to what amount your expenses were the last year, and the loss and gain—make out a fair statement and enter the whole into a book for the purpose.

Having arrived at this important knowledge, you will imitate the prudent traveler who always keeps in view where he is next to move. You will now look forward and calculate in what way you shall best meet and prosecute the business of the ensuing season.

And lastly, when the frost of winter shall arrest your out-door labors, and the chilling blast shall storm your dwelling, let your fireside be for yourself and your wife, and your children, the happiest spot on earth; and let the long evenings, as well as the short days, be appropriated to the mutual preparations for that "eternal spring," which sooner or later shall open in all its freshness to those who have "done justly, loved mercy, and walked humbly with God."

ERRATUM.—In our first number we stated that "the 'Ruggles, Nourse, and Mason's Eagle Plow' could be had of Mayher & Co., New York, as seen by an advertisement on the last page." On recurring to the Advertisement we observe the plow advertised to be a different one, and are informed that A. B. Allen & Co. are the sole agents of the "Ruggles Nourse, and Mason's Plow" in the city of New York.

PUMPKINS FOR MILCH COWS.—What! Are our ancient thanksgiving privileges to be encroached upon? Do you seriously recommend us to give the cows our great, rich, yellow pumpkins? Forbid it! Both *mo-lasses* and *lasses*, of Yankee birth, and "broughten up!" And further, are all our time honored customs of pumpkins in the corn field, to give place to this new fangled notion of book farming? And shall we see our best land planted with pumpkins alone? What if the crop should be more profitable?—What if the corn should be better alone, and the pumpkins alone? Do you think they would stand it? No sir. You would soon see them creeping through the fence, and claiming protection of their old friends, the corn stalks saying as plain as pumpkin vines could say, "What has been so long joined together, let no man put asunder." Be a little careful, Messrs. Editors, how you recommend innovations on our time-honored customs.—Why, the next thing I shall expect to see, will be a recommendation to plant our white beans in a field by themselves, and not stick them in among the corn hills. We honor the memory of our fathers too much to make any changes in our modes of farming, sir.—*Review of an article in the American Agriculturist.*

THE CROPS.—The Clearspring (Md.) Sentinel of Saturday, says: "The wheat crop, under the genial influence of the late rains and warm sun, has improved surprisingly. It will all survive except some fields of Zimmerman wheat, which has been destroyed by the fly."

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TO POSTMASTERS.

There are thousands to whom the subject needs only to be suggested, who would subscribe to a paper devoted to Southern Agriculture at the low price of one dollar a year. Your public position as well as other causes make you, persons, frequently conferred with upon the merits of newspapers and public journals. Situated as you are at central points in every part of the country, you have opportunities to exercise very great influence for the general good. The Post office department at Washington, looking to public convenience, has by its decisions encouraged your kind offices to the Press. We therefore, respectfully, solicit that you act as agents in your neighborhood to procure subscribers for the "Farmer and Planter." We would willingly allow commissions, for money collected from subscribers obtained in this way, if we had any idea they would be acceptable.

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